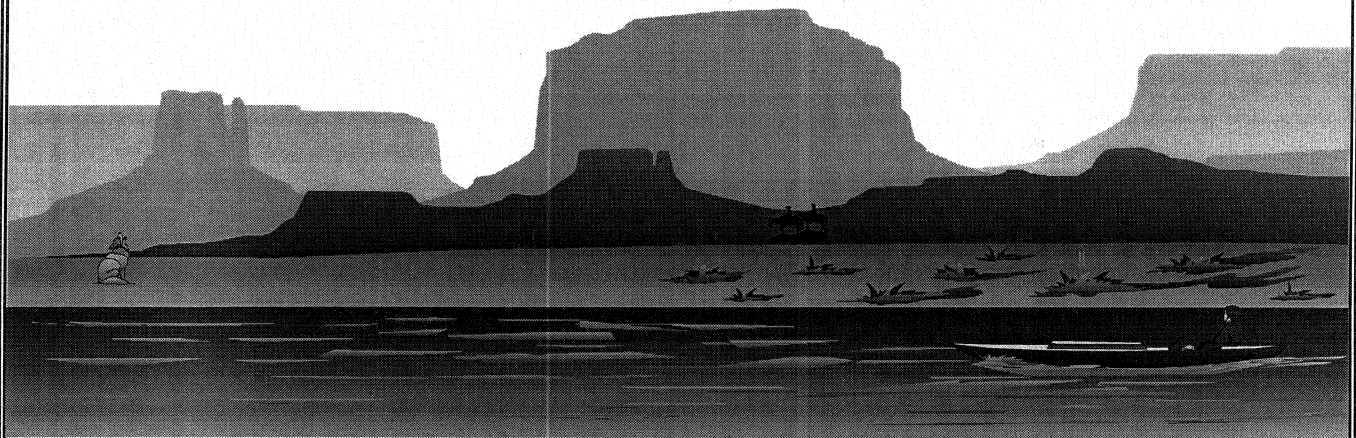
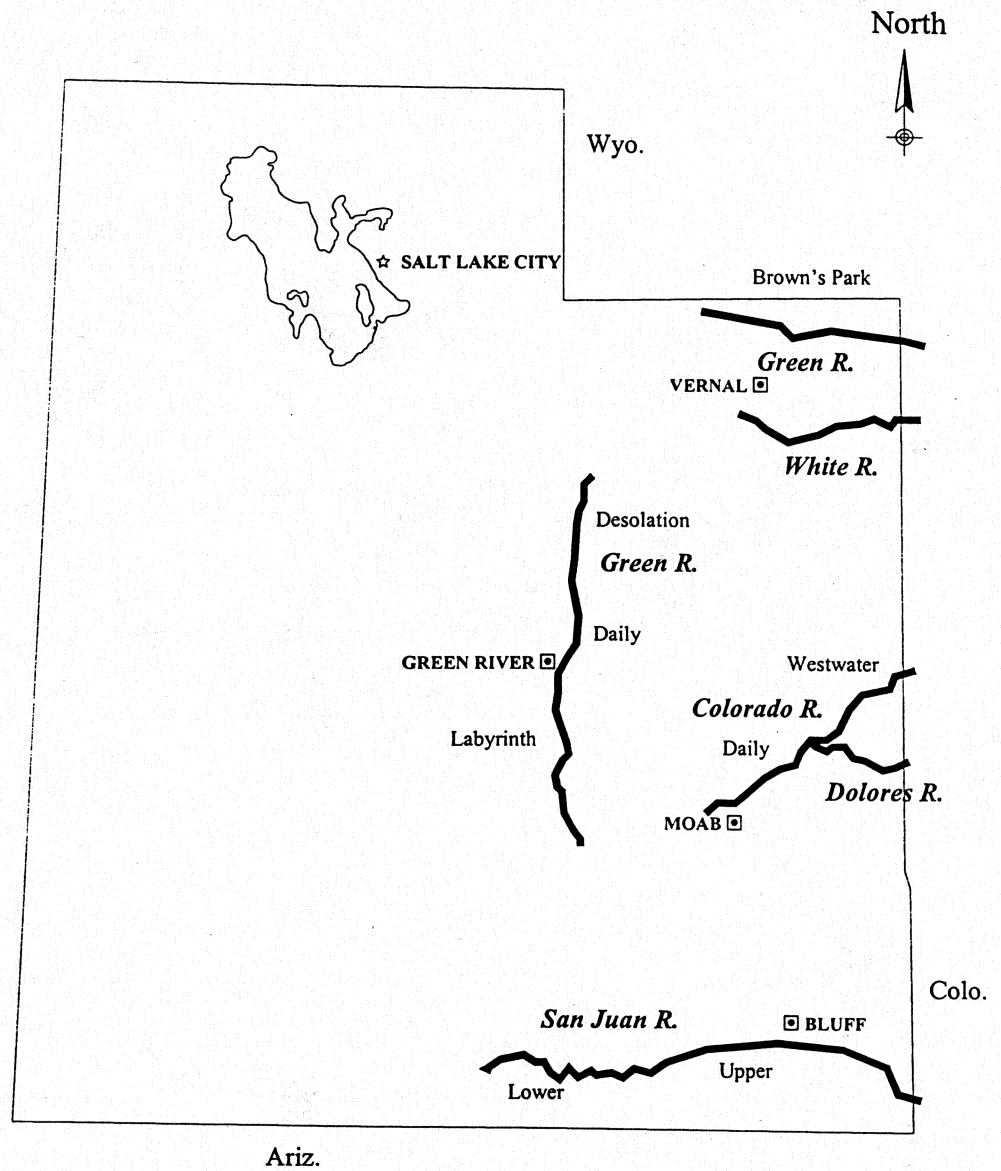


**UTAH RIVER STUDY RESULTS REPORT:  
RECREATIONAL USE, VALUE, AND  
EXPERIENCE OF BOATERS ON RIVERS  
MANAGED BY THE BLM IN UTAH**

**VOLUME IV: RIVER MANAGEMENT POLICY  
BACKGROUND AND RIVER RUNNERS' ATTITUDES  
TOWARD MANAGEMENT POLICY**



Institute of Outdoor Recreation and Tourism  
Utah State University  
Department of Forest Resources  
Logan, Utah 84322-5215



**Figure 1. Major floatable Utah rivers administered by the Bureau of Land Management.**



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AND RIVER RUNNERS' ATTITUDES TOWARD  
MANAGEMENT POLICY**

*prepared for:*

Bureau of Land Management  
Department of Interior

**BLM TASK ORDER #25  
COOPERATIVE AGREEMENT #D910A30210  
OMB #0596-0108**

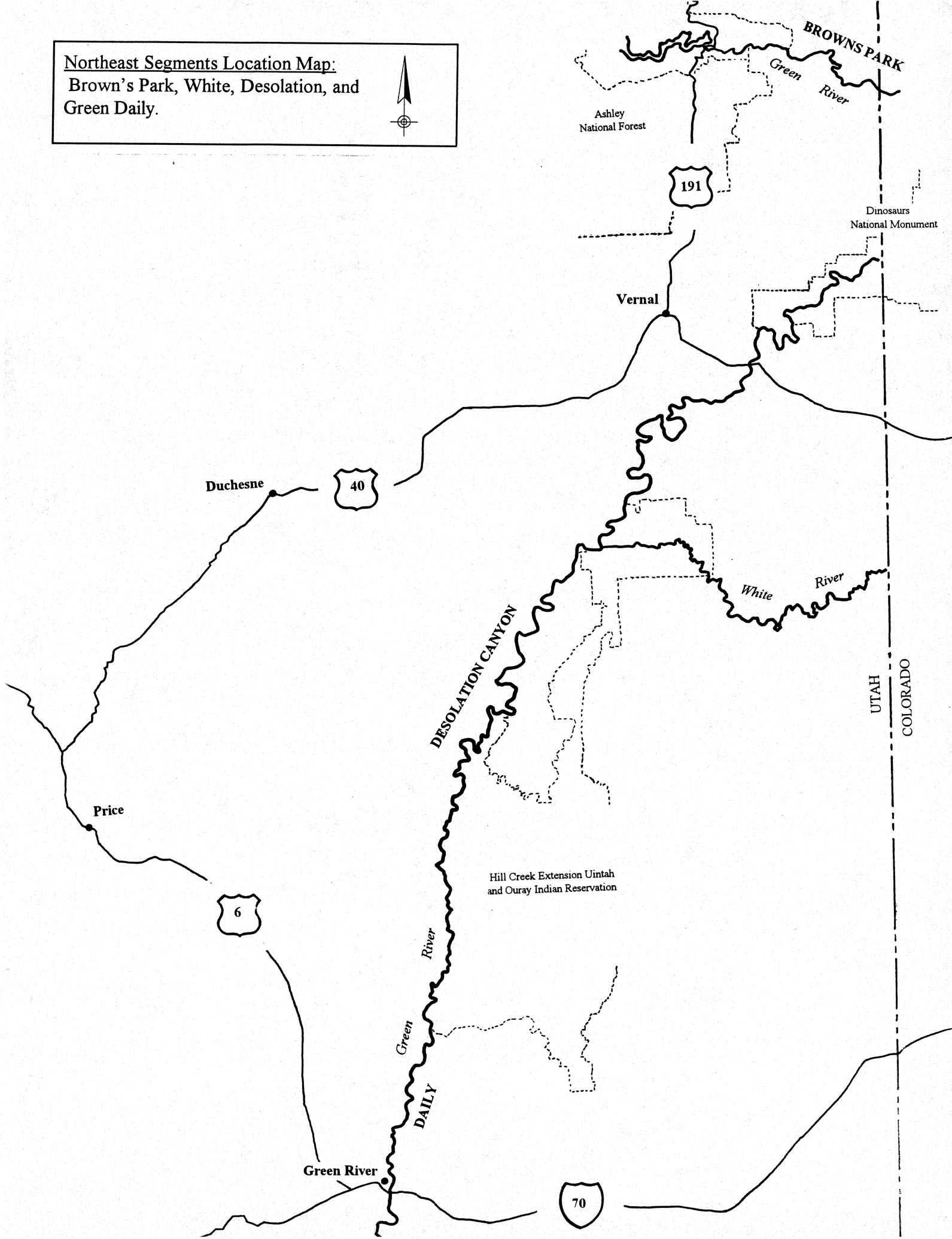
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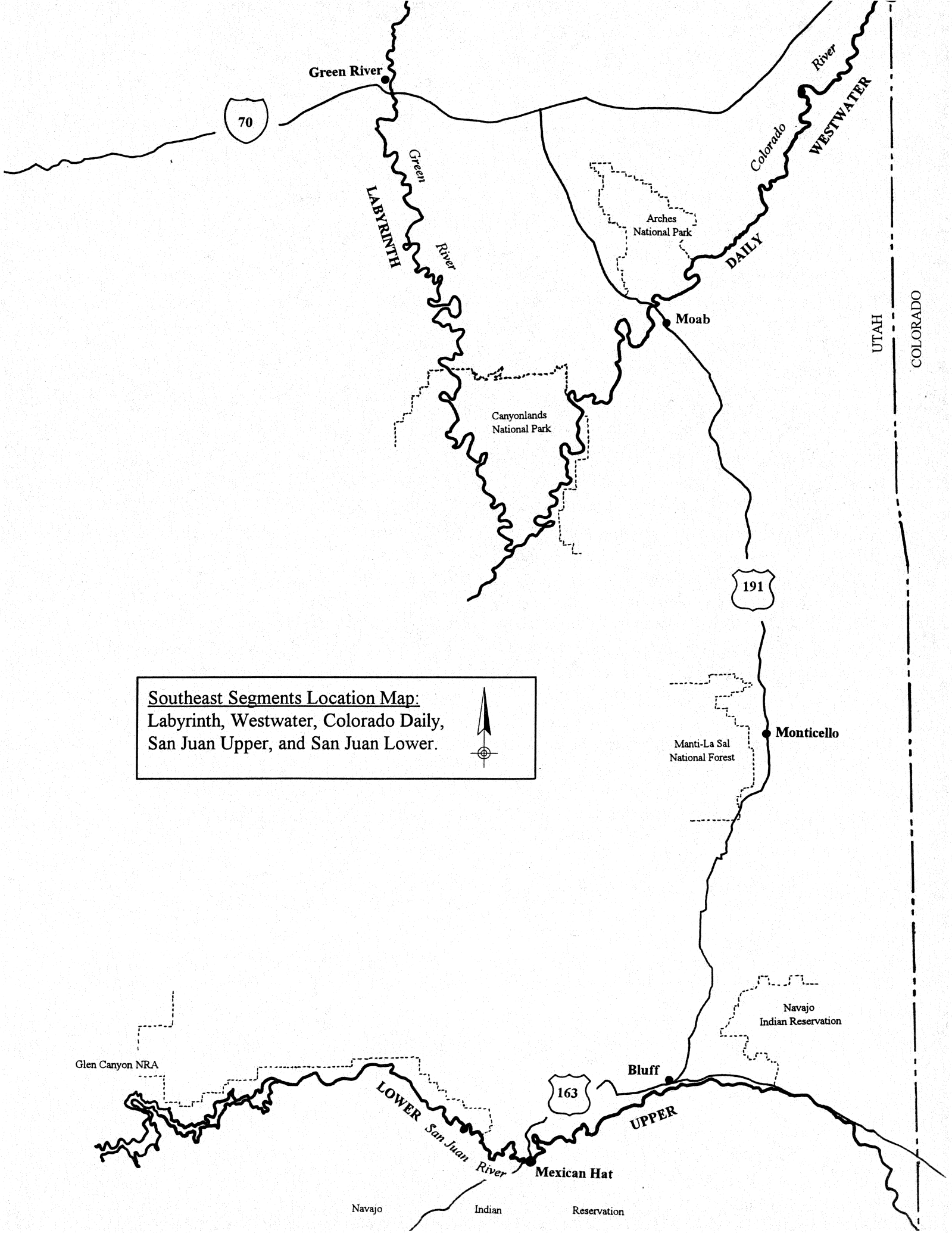
Jennifer Bodine  
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Institute for Outdoor Recreation and Tourism**

October 15, 2001

Northeast Segments Location Map:  
Brown's Park, White, Desolation, and  
Green Daily.





Southeast Segments Location Map:  
Labyrinth, Westwater, Colorado Daily,  
San Juan Upper, and San Juan Lower.



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## **IV-A. RIVER POLICY AND MANAGEMENT BACKGROUND**

### ***Introduction***

River recreation on Utah Bureau of Land Management Lands (BLM) has increased dramatically over the past few decades. As the demands for river boating opportunities on public lands have increased, so has the complexity of the BLM river manager's job. The purpose of this research project was to provide BLM river managers with information about boaters' river management preferences in order to help guide management decisions.

To obtain information about boater preferences, the Institute for Outdoor Recreation and Tourism at Utah State University (USU) conducted visitor surveys for nine selected river segments on, or adjacent to, BLM administered land in Utah. While the USU survey also gathered data on boater attitudes and behaviors, this research project focused primarily on the visitor survey information, which pertained to boater's attitudes towards river management. The study focused on river segments which have commercial boat operators on raftable white-water. The river segments that were selected for this study, from north to south, were the Green River (Brown's Park segment), the White River (Bonanza segment), the Green River (Desolation and Gray Canyon segments), the Green River (Labyrinth Canyon segment), the Westwater Canyon segment of the Colorado River, the Colorado Daily, and the San Juan River (Upper and Lower segments).

The Brown's Park segment of the Green River flows from Flaming Gorge Dam to the Brown's Park Bird Refuge by the Colorado Border. The first section of this river segment (from Spillway to Little Hole) is managed by the Forest Service and the remaining sections (Little Hole to the Colorado

border) are managed by the BLM. This segment is known for its blue-ribbon trout fishery and consequently, receives a relatively high amount of use on certain sections. The average trip length for boaters on this segment is usually one or two days.

The Bonanza segment of the White River is, on average, run in three days. The boating season on this segment is relatively short and the water is primarily flat-water. Boaters will typically take-out before entering the Uintah-Ouray Indian Reservation.

The Desolation and Lower Gray Canyon river segments are located in one of the most remote areas of Utah and have class II-III rapids. The Desolation Canyon section runs from Sand Wash to Nefertiti Falls, and the Lower Gray Canyon (Daily) section runs from Nefertiti Falls to Swasey's Rapid. The average trip length through Desolation Canyon is six days, and is one day (usually 4-6 hours) through Lower Gray Canyon. Boaters floating through Desolation Canyon will often stop to view archeological sites and take short hikes. Many boaters floating through Desolation Canyon will also float the Daily section and take out at Swasey's Rapid.

The Green River Labyrinth Canyon segment is typically run from the Green River State Park to Mineral Bottom (northern boundary of Canyonlands National Park). The average trip length for this segment is five days. The Labyrinth Canyon river stretch is fairly remote and has class I rapids.

The Westwater Canyon segment of the Colorado River consists of class III-IV rapids and is the most challenging of the study river segments to run. This river section is usually run in one full day. However, many boaters will camp overnight and turn the experience into a two-day trip (Table 1). The Colorado River Daily segment receives heavy-use, especially from tourists visiting Moab. This segment takes approximately four hours to run and consists of class I-III rapids.

The San Juan River is located in the southeastern corner of Utah. Boaters on the San Juan River will run the upper, the lower, or both sections of the river. The San Juan Upper segment runs from Sand Island to Mexican Hat. The San Juan Lower segment is run from Mexican Hat to Clay Hills Crossing. Boaters floating both segments, run the river from Sand Island to Clay Hills Crossing. Floating the San Juan Upper takes two days on average. Floating the San Juan Lower takes approximately six days. Both segments offer class II-III rapids and have a variety of opportunities such as viewing ancient cliff dwellings and hanging gardens, as well as hiking up side canyons.

This volume consists of two sections. In the first section, current river management policy on each river segment is discussed. In the second section, results from the river management preferences section of the USU boater survey were analyzed. In the last section, the USU survey is further utilized to identify problems encountered on each river segment and the most important problems that river managers should address.

### ***State and Federal Policy Context***

The Bureau of Land Management's (BLM) river policies in the state of Utah are guided by a multitude of laws derived from the federal, state, and local levels. For example, the BLM and its administrative powers were obtained through enactment of the Federal Land Policy and Management Act (FLPMA) of 1976. FLPMA not only provides the BLM with general management guidelines, but it requires multiple uses to occur on BLM lands. Recreation is one of those multiple uses that the BLM is required to provide due to the passage of FLPMA.

Other examples of specific grants of authority to the BLM that emanate from the federal level are Executive Orders, Federal Register Notices, and various other laws passed by Congress. State

laws may also come into play if they are not contrary to the nature and spirit of federal laws. These combinations result in policies that mix national and state laws with local considerations to hopefully meet the management requirements of a specific location with its unique set of natural resource characteristics.

Among the federal laws that may impact management decisions on one or more of the nine BLM river segments studied (Green River—Brown’s Park, White River, Green River—Desolation, Green River—Daily, Green River—Labyrinth, Colorado River—Daily, Colorado River—Westwater Canyon, and the upper and lower sections of the San Juan River) are the Wilderness Act of 1964, FLPMA, the Wild and Scenic Rivers Act of 1968, and notices in the Federal Register outlining the procedures for the commercial and private permitting processes. The Wilderness Act empowered Congress with the authority to establish “wilderness areas” for preservation purposes. Wilderness areas are defined generally by size, naturalness, and “opportunities.” The size must be “roadless areas of at least 5,000 acres or of a manageable size;” naturalness refers to idea that the land “generally appears to have been affected primarily by the forces of nature;” and opportunities means that the area “provides outstanding opportunities for solitude or primitive and unconfined types of recreation.” Wilderness designations change recreation management in the respect that certain types of recreation are no longer permitted on these lands once they become designated wilderness. For example, only non-motorized and non-mechanical forms of recreation are allowed to take place on wilderness lands (BLM 1999i).

FLPMA relates to the Wilderness Act in that it directed the BLM in 1976 to inventory its remaining roadless areas and make recommendations to Congress as to whether the lands should become designated wilderness. Pieces of land that were inventoried by the BLM and were found to

meet the legal definitions of wilderness were termed Wilderness Study Areas (WSA). Eventually, WSAs are reviewed by Congress and either become designated wilderness in the National Wilderness Preservation System (NWPS) or are taken out of consideration for wilderness completely. WSA status affects managerial decisions because FLPMA requires that WSAs be managed for the protection of wilderness values pending Congressional decision. While WSA management is not as restrictive as management applied to designated wilderness areas, any activity that would reduce the wilderness suitability of the land is not allowed (BLM 1999i).

In the 1980s, the Utah BLM completed the inventory mandated by FLPMA and identified about 95 WSAs. From 1996-1998, the BLM conducted a second inventory in Utah under the direction of the Secretary of the Interior, Bruce Babbitt. While this second inventory did not result in recommendations for additional WSAs, it did identify BLM lands with wilderness characteristics. The management of the lands identified in this second inventory does not officially change until the BLM qualifies them for WSA status (BLM 1999i). However, the BLM will often unofficially manage those identified areas so that wilderness values are not diminished until further decisions can be made (M. Brunson, Ph.D, personal communication).

The Wild and Scenic Rivers Act allows for specific rivers to be identified and managed for cultural, wildlife, fish, geologic, scenic, or recreational aspects and values. Once they are officially designated, they are regulated in a manner that protects those key qualities (16 U.S.C. §§ 1271 to 1287. 1968). While no rivers in Utah have been given the Wild and Scenic River status, several (Green River—Brown's Park, Green River—Desolation /Gray Canyons, Green River—Labyrinth, Colorado River—Westwater Canyon, and the San Juan River) are still under consideration as potential

candidates. As a result, they are “afforded adequate interim protection” by the BLM to preserve these characteristics until a final congressional ruling can be made (BLM 1991).

Commercial and private permitting procedures outlined in the Federal Register also guide BLM river management. These provisions have been amended a few times over the past two decades with the most current revisions occurring in 2000. These changes were made to more accurately reflect contemporary recreational values and to allow the BLM to increase commercial and private boater fees. This proposed rule has yet to become finalized, however. Still, these stipulations shall be discussed since they are the most current (BLM 1999c).

Private permits to boat on BLM lands are not always necessary, and thus they will be discussed on a case by case basis in the individual river sections. For commercial outfitters, however, Special Recreation Permits (SRP) are always needed. Commercial groups are defined in the Federal Register notice as “any person, group, or organization that makes or attempts to make a profit, receive money, amortize equipment, or obtain goods or services, as compensation from participants in recreational activities occurring on public lands” (43 CFR §§ 2930, 3800, 8340, 8370, 8560, 9260).

As a commercial enterprise, outfitters are allowed to charge for their services, but may not charge customers for the permit itself. Permits are not allowed to be transferred without the BLM’s consent, and all permittees must have insurance that the “BLM judges sufficient to protect the public and the United States.” In addition, the policy “must name the U.S. Government as additionally insured or co-insured” (43 CFR §§ 2930, 3800, 8340, 8370, 8560, 9260).

The commercial permittee must also ensure that its customers obey all safety and environmental regulations. Safety rules include not only those outlined in the Utah Boating Act and Board of Parks and



Recreation Boating rules, but additional ones that the BLM judges to be appropriate (Utah Parks and Recreation—Boating Program, 1999). Environmental regulations include party size limits of twenty-five on Westwater, Desolation-Gray Canyon, and San Juan Rivers. They also require that trash, ashes, and human waste be carried out and disposed of properly, and that reusable, washable, and self-contained toilets be utilized in places not having facilities. Firewood collection is limited to driftwood, and metal fire pans must be used for building fires (46 FR § 3642).

Utah boating laws and regulations also affect river recreation on BLM lands (R. Fehlau, BLM, personal communication). These guidelines have various equipment requirements that depend on the size and type of the boat as well as the type of water a boater is floating on. The boating laws also outline commercial operation and boat registration stipulations (Utah Parks and Recreation—Boating Program, 1999). Under Utah state law, all visitors to BLM lands within the state must adhere to these rules. In many cases, the BLM may even upgrade these rules by requiring, for instance, higher class life-jackets or whatever it deems necessary to provide for safety while protecting the resources (R. Fehlau, BLM, personal communication).

River recreation is also affected by the Utah BLM Standards for Public Land Health and Guidelines for Recreation Management, which were adopted in 1997. These guidelines basically consist of four standards that land or recreation managers must take into consideration. The first rangeland health standard states that management activities should make sure that “upland soils exhibit permeability and infiltration rates that sustain or improve site productivity.” This means that managers should attempt to manage so that recreation activities have minimal impacts on the soil and vegetation (BLM 2001).

The second standard says that managers should manage so that “riparian and wetland areas are in properly functioning condition.” This implies that managers need to monitor recreation activities that take place in the riparian area and make sure that these activities do not detrimentally affect the riparian zone. The third standard states that management should manage so that “desired species, including native, threatened, endangered, and special status species, are maintained at a level appropriate for the site and species involved.” For recreation managers, this means that recreation activity that negatively affects wildlife or their habitats should be kept to a minimum. The fourth and final rangeland health standard requires that the “BLM will apply and comply with water quality standards established by the state of Utah and the Federal Clean Water and Safe Drinking Water Acts.” This would imply that managers would determine areas where recreation activities could seriously impact water quality and keep those activities to a minimum (BLM 2001).

While there are other pieces of federal and state legislation that impact BLM river recreation management, these few examples outline some of the basic framework that BLM employees look to in creating local policy. Additionally, local policies apply to individual river segments, and some are included in resource, recreation, or river management plans. Due to the special circumstances of different areas, these policies can be dramatically different in terms of regulations and degree of formalized management. The diverse policies and management found on the Green River (Brown’s Park), White River, Green River (Desolation Canyon, “Daily,” and Labyrinth), the Colorado River (Westwater Canyon and “Daily”), and the San Juan River illustrate this point

#### ***Green River – Brown’s Park***

Due to the lack of demand for river recreation opportunities, formalized management of the

section of the Green River from Flaming Gorge Dam to the Utah and Colorado state line did not become necessary until the 1970's. During this decade, the Green River, along with many other Utah rivers, experienced a marked increase in recreational use. During the 1970's for example, recreational floating increased so rapidly that a Green River Management Plan was created in 1979 and 1984 to address the "surge in recreational floating use" (BLM 1996a). Also, due to the efforts of the Utah Division of Wildlife Resources during the mid 1980's, fishing on the Green below Flaming Gorge Dam was vastly improved to become a "Class I Fishery" and thus even more users flocked to the Green (BLM 1996a).

As the number of users increased throughout the 1980's on the Green River, the Forest Service hired the Institute for Human Ecology to conduct a study on the types of users and the use capacity of the river. In 1991, the Institute for Human Ecology completed *The Recreation Use Capacity of the Green River Corridor below Flaming Gorge Dam* study which provided the basis for future management decisions. First, as required by National Environmental Policy Act (NEPA) and FLPMA, an Environmental Impact Statement (EIS) and Resource Management Plan (RMP) was completed for the area in 1994. The result was the Diamond Mountain Resource Management Plan, which examined five different alternatives that uniquely addressed concerns about "resource uses affecting vegetation, soils, and watershed values; special management emphasis areas; and resource availability and accessibility" (58 FR § 43371). One of the five alternatives was selected and the Decision Notice and Finding of No Significant Impact for the Green River Management Plan, which was written cooperatively by the BLM (Vernal District) and the Forest Service (Ashley National Forest), became the final management product in 1996.

As was originally implemented in the Recreation Use Capacity Study, in the final management plan the Green River was divided into three sections: A, B, and C. Section A consists of the section from Flaming Gorge Dam (Spillway put-in) to Little Hole and is managed by the Forest Service. Section B goes from Little Hole to Indian Crossing, and C reaches from Indian Crossing to the Utah/Colorado State line. Sections B and C are managed by the BLM (Institute for Human Ecology 1991).

From the Institute for Human Ecology's 1991 study, it was discerned that, in general, people believed that the number of commercial boats seen on the river was "about right." On the other hand, most people felt partially or "somewhat" crowded by individual people on certain sections of the river. No positive correlation between actual numbers seen and a sense of crowding was found through data analysis. In fact, more people in the less crowded sections of the river (B and C) complained of crowding than those in the more crowded section A. As the study concluded, "the more people encountered the less sensitive, on average, was the respondent" (Institute for Human Ecology 1991).

Based upon their interpretation of these results, the BLM, in the Green River Management Plan, implemented limits on the number of private and commercial launches per section of the river per season. Because concerns about crowding were expressed in numbers of people for private groups and numbers of boats for commercial fishing outfitters, restrictions referred to the number of persons at one time (P.A.O.T) for the private sector, and the number of launches for the commercial fishing groups. Since section A was found to receive use from 90% of the fishers and 86% of the non-fishers, it had the most stringent limitations placed on it even though the perception of crowding was lowest on this section (Institute for Human Ecology 1991). Depending upon the season, section A was allotted

350-600 private persons per day and 20-30 commercial fishing launches per eight-hour period. Also depending upon the season, section B was allowed 400 private persons per day and 20 fishing launches per eight-hour period. Since section C received very little use, no limits were placed on it for either private or commercial launches (BLM 1996a). However, after going through the final public scoping process, it was decided that these limits would not be put into place until 20% of the days in a particular season had exceeded these bounds. Additionally, the restrictions would not be officially enacted until the ensuing year after the use limits had been violated (BLM 1996a).

Overall, it was also decided that the number of outfitting permits would be restricted to ten, and thus the launches would be split among the commercial entities. Furthermore, commercial boats on section A were only allowed to have five launches per day on Friday and Saturday. This was implemented to help ease the traffic on the most heavily used portion of the Green River on the most intensely used days (BLM 1996a).

The second area of management the Green River Management Plan emphasizes is boating safety. Over the past twenty years the Green River experienced an increase in the number of users. As a result, safety and conformity to the State of Utah boater safety regulations was determined to be more important than ever. Moreover, because of safety problems in the past, the management plan stressed the necessity for the number of people in a boat not to exceed its intended capacity. Also, it restricted boat towing (tying two or more boats together) through sections A and B, the most crowded sections of the river (BLM 1996a).

The final aspect the management plan addresses is “sanitation facilities and requirements” to maintain a sufficient level of health for both humans and natural resources. In addition, sanitation

facilities were located in areas that took into consideration “recurrent high flows of the Green River due to recovery of endangered fishes, or for other reasons, in the Colorado River system” (BLM 1996a).

The management plan contains provisions for maintenance of the existing flush and composting toilets along section A to the greatest length of the year that weather conditions will accommodate as well as adding another portable toilet at Spillway. Secondly, the plan called for additional toilet facilities at milepost 2.5 and 4. On Section B, however, the Institute’s recommendations were to preserve “a less-crowded haven” by not undertaking “further management actions such as promotions, quotas, road improvements, or new launch ramps, that would encourage use to shift into Segment B from Segment A” (Institute for Human Ecology 1991). Therefore, toilets at Jackson Creek Camp, Pugmire Pocket Camp, and Red Creek Camp were to be taken out, covered, and the land restored to its natural state. New composting toilets would be built by Big Cottonwood Camp and Red Creek. Regulations also required that all campers bring their own “washable, reusable, and portable toilet systems” (BLM 1996a).

Campgrounds were also to be improved in a variety of ways. A new campground was to be constructed at Cottonwood Grove, and restroom facilities would also be provided at the Lone Tree Campsite and the Swallow Canyon launch site. The Bridge Hollow Campground would also be “maintained to provide the needed sanitation and camping facilities.” Finally, trash would be required to be carried out by outfitters and users, but trash cans would also be provided at Spillway, Little Hole, Indian Crossing, and Bridge Hollow (BLM 1996a).

Part of the Green River Management Plan also included an interagency agreement between the Forest Service and the BLM. This agreement basically allocated management responsibilities between



the two agencies. For example, the Forest Service agreed to “administer special recreation permits issued by the BLM (not necessary for noncommercial use)...and act as a contact for permittees involving issues concerning their operation related to the river corridor” (D. Moore, BLM, personal communication). In addition, the Forest Service would collect fees for overnight camping for their ten campsites as well as the BLM’s eight. On the other hand, the BLM agreed to also issue special recreation permits, “process billings under BLM procedures for special recreation permits issued to outfitter/guides,” and “disperse all monies collected from special recreation permits for management of the Green River as agreed upon at the annual meeting” (BLM 1996b).

Within the past decade, the Green River was reviewed for Wild and Scenic River characteristics. Section A was found to contain scenic characteristics (such as threatened or endangered fish) cultural resources, and wildlife values. Section B was not considered suitable for special designation. However, Section C was also found to be suitable for a scenic definition due to its special fishery status and cultural values (58 FR § 43371). While the Green River is not officially a Wild and Scenic River, its identification as a potential candidate provides the BLM with the authority to manage for the maintenance of these characteristics.

### ***White River***

Unlike the Green River, the White River does not have a site specific River Management Plan (D. Moore, BLM, personal communication). One source for recreation management specifically on the White River can be found in the 1985 *Book Cliffs Resource Management Plan*. However there is very little discussion about river recreation on the White in this plan. It simply states that recreation opportunities “will be managed by the BLM.” The Resource Management Plan does, however,

describe the necessity for floaters to avoid the river during drought years and from August throughout the rest of the year due to potential danger resulting from inadequate water flows. Also, boaters must always comply with the Utah Boating Safety Act (BLM 1993).

On the White River, there is little need for management activities. There are no developed facilities, and thus no maintenance is needed. Also, permits are not required on the White River for private groups. However, if people plan on camping, floating, or parking on Uintah and Ouray tribal lands, there are three types of permits that users are required to obtain prior to use. Permits can be picked up either at the Fort Duchesne Tribal office or mailed to the permittee's home address after calling tribal headquarters (BLM 1998).

The White River was one of the river segments inventoried for wilderness characteristics in the 1990s, and one contiguous section was found to possess the criteria for all of the wilderness characteristics outlined by the inventory team (BLM 1999h). For example, the White River was determined to be affected primarily by natural forces with very few developments, it presented "outstanding opportunities for solitude," and the area surrounding it was found to be large enough in size to "ensure an outstanding opportunity for unconfined recreation" (BLM 1999h). However, there currently are not any WSAs in the region and thus, management on this river segment has not officially changed (BLM 1999h).

### ***Green River – Desolation/Daily***

The key document guiding management for the Desolation and Daily sections of the Green River is the *1979 River Management Plan for the Desolation and Gray Canyons* (Willis 1999).

The primary management objectives outlined in this plan is to

“maintain the natural character of the canyon environment in Desolation and Gray Canyons, to provide for the equitable distribution of available user days to a broad spectrum of the public, to provide a continuing opportunity for a quality wilderness type experience between Sand Wash and Nefertiti Rapid, to provide an opportunity for day use oriented recreation below Nefertiti Rapid, to protect the scientific value of cultural resources while allowing for their enjoyment, and to provide for safe and lawful use of the river resource” (BLM 1979).

Due to the diversity of uses and values found on these portions of the Green River, the administration is divided into two river sections whose goals attempt to meet those differing needs. The first management section is from Sand Wash to Nefertiti Rapid (traditional Desolation Canyon run). The second section is from Nefertiti Rapid to Swasey’s Rapid which appropriately is called the “Daily” section of the Green River (BLM 1979).

*Desolation.* On the Desolation Canyon section of the Green River, the 1979 plan amended the existing carrying capacity from 30,000 passenger days per five-month season (stated in the Federal Register of April 14, 1976) to 35,000 passenger days during a twelve-month period. This number was changed because several campsites and stops were receiving heavy and damaging use. In fact, problems with garbage and human waste burial were so bad that managers also required most large parties to begin storing and carrying out both items. In addition, sociological studies conducted by Utah State University showed that a sizable proportion of floaters were feeling crowded and felt that Desolation Canyon should be more of a wilderness experience (BLM 1979). Thus, the BLM decided

that additional environmental and social studies would be conducted to determine the “correct” amount of floaters the canyon could sustain and still be considered a wilderness experience (BLM 1979).

In the 1970s, the allocation of passenger days favored commercial users over private or noncommercial boaters (19,875 vs. 14,725). Thus, one of the purposes of the 1979 management plan was to attempt to divide these days more evenly through each successive season. Since only so many visitor days of floating were allowed, a “passenger day pool” was established where unused days could go towards meeting the demands for those extra days in both the noncommercial and commercial sectors. The final stipulation however was the “no repeat rule.” This rule stated that each person, excluding boat crews and workers, are allowed to float through Desolation only once per year (BLM 1979).

The number of actual launches allowed at this point were six per day during the high use season (May 15 through August 15) and two per day during the rest of the year. Launches, as with passenger days, were divided equally among private and commercial parties. Furthermore, party sizes per boat were reduced from forty to twenty-five. This limit was once again a result of sociological studies that indicated that most people were comfortable encountering groups from twenty to thirty people in size (BLM 1979).

Over the years, more and more recreation restrictions have had to be put into place due to environmental degradation and the increase in potential users and safety issues. Some of the most recent regulations are contained in the *1999 BLM River Use Stipulations for Private Floaters of Desolation Canyon, the San Juan River, and Westwater Canyon* (referred hereafter as 1999 River Use Stipulations). As before, individual groups are limited to 25 or fewer people to minimize impacts on

campsites and the river. Additionally, floaters must, as they have always been required, comply with Utah State boating laws. These laws mandate a first-aid kit large enough for the group be brought along, a repair kit with “adequate materials to repair the types of boats used on the trip,” air pumps to inflate the boat, a whitewater lifejacket of type I, III, or IV, an “extra oar, paddle, or motor,” a bail bucket, a “type IV throwable device” (for boats 16 feet or longer), and for all boats under 16 feet, one extra paddle for every three boats (BLM 1999a).

Further provisions address environmental considerations. For example, toilets with lock-on lids must be brought which are capable of holding human waste for the size of the group until it can be carried out. Fire pans must be used and must be large enough (“12 inches wide with at least a 1.5 inch lip around its outer edge”) to hold all of the ashes for carry out. In general, all solid waste (garbage, human waste, remains from dishwater) or soap cannot be buried or deposited on BLM lands. It must be removed and disposed of properly. Permittees are also instructed not to destroy or take any historical landmarks and artifacts, to not travel upstream or downstream using a motor (unless at a low speed), and to not camp together in groups larger than 25 (BLM 1999a).

For each river there are also supplemental rules. For Desolation and Gray Canyons, people may not “camp or build fires on Public Land within ½ mile of the mouth of Rock Creek. Boat tags issued by the river ranger must remain attached to boats for the entire trip.” Finally, the “minimum trip length is three calendar days and the maximum trip length is nine calendar days” (BLM 1999a).

Due to the increased demand to float through Desolation Canyon, the permit system for private boaters has become rather competitive. As stated in the 2001 BLM river running information, applications must be received by January 31 of the year the trip is planned in order to make it available

for the lottery (BLM undated a). In February, applications are randomly selected in a lottery fashion until all of the spots are filled. The winners are then notified by mail and are required to pay eighteen dollars per person (collected from March 1 through October 31) thirty days before the assigned launch date. If the money is not paid in time, that launch date is forfeited and open to the public once again. This permit may not be sold or exchanged to anyone and photo identification must be shown upon request at the launch site (BLM Undated a).

Copied applications are not accepted. In fact, people must call or write to request applications. Furthermore, completed applications will not be accepted by e-mail or fax. They must be delivered through the regular mail. These seemingly stringent standards are in place because of the competitiveness of the permitting process. As Dennis Willis, an Outdoor Recreation Planner for the BLM, states in a report on the permitting of private river trips, "neither our rivers nor our permit systems are underutilized." Therefore, there is no need for the BLM to accept any applications it does not wish to receive" (Willis 1999). Requiring applicants to follow the same routine when applying for a permit makes the permitting process more fair between competitors. It also reduces the amount of time BLM managers would have to spend gathering applications from different sources and compiling them.

On the east side of the river from Upper Gold Hole to Coal Creek, the Uintah and Ouray Indian tribes own the land. Permits must be obtained from them in order to camp on their reservation. This can be done by calling or mailing the Ute Tribe Fish and Wildlife Department (BLM 1979).

The final administration plans outlined in the *Desolation and Gray Canyons of the Green River Management Plan* deal with the Green River's eligibility as a Wild and Scenic River as well as the area's designation as both a National Historic Landmark and a Wilderness Study Area (WSA).



While the Green River in the past two decades has yet to be classified as a Wild and Scenic River, it still has not been completely disqualified. On the other hand, the BLM has been successful in achieving National Landmark Status for the Green River. This status has been given to the Green River from the mouth of Nine Mile Canyon to the mouth of Florence Creek. This designation was applied primarily due to evidence of John Wesley Powell's exploration of those lands. These historic sites are managed for protection, and thus rangers must patrol the landmarks from time to time to reduce archaeological vandalism (BLM 1979).

In addition to Historic Landmark Status, there are a few WSAs located on, or around Desolation Canyon. In addition, the BLM identified additional sections of land throughout Desolation Canyon in the 1990 inventory that possessed wilderness characteristics. However, as discussed previously, those areas' classification does not officially change management policy unless the lands qualify as Wilderness Study Areas or become designated wilderness (BLM 1999b).

*Green River Daily.* Administration of the portion of the Green River from Nefertiti Rapid to Swasey's Rapid ("Daily" section) is different than that of the Desolation section. As a result of a road running along the east side on that portion of the river, it is easily accessible for one-day trips and daily use. The 1979 management plan stated that it was "unrealistic to manage this portion using the same approach employed on the wilderness sections of the river." However, private permits can be required for this section if "additional use demonstrates the need" and commercial permits would be made available to "operators with a current permit for Desolation and Gray Canyons" (BLM 1979). Currently, private permits are not required however.

In a 1993 Federal Register notice, some environmental restrictions were finally put into place

for this section of the Green River. Like the Sand Wash to Nefertiti Rapid section, all waste including human, garbage, and fire ashes, have to be carried out. Fire pans and reusable toilets, as previously described in the *1999 River Use Stipulations*, are also required and “firewood collection is limited to driftwood” (58 FR § 17424). Furthermore, as on all Utah rivers, Utah state boating laws apply.

### ***Green River – Labyrinth***

The Labyrinth Canyon section of the Green River (Green River State Park to the boundary of Canyonlands National Park) is located just south of the Desolation and Daily segments and Interstate 70. While Labyrinth Canyon does not have a specific published management plan, a 1993 Federal Register notice outlined special guidelines that must be followed by all users. These rules are exactly the same as those just previously discussed for the Daily segment. However, group sizes on the Labyrinth are limited to twenty-five people, and “two or more groups may not camp together” (58 FR § 17424). Once again, regulations in the Utah State Boating Act are applicable. Also, noncommercial boating permits are currently not required to float through Labyrinth Canyon. However, the BLM does ask that people register at the put-in (BLM 1999d).

Labyrinth Canyon is recently a Federal Study River for Wild and Scenic River status. If and when Congress designates this portion of the Green River as Wild and Scenic, management will change to reflect those values. Moreover, the Horseshoe Canyon WSAs are adjacent to the Green River and run throughout Labyrinth canyon. Other sections of land were identified to have wilderness characteristics in the 1996-1998 inventory. However, once again, official management is not changed on those inventoried lands until the BLM recommends them as WSAs (BLM 1999e).

### ***Colorado River – Westwater Canyon***

Management of the Colorado River segment that runs through Westwater Canyon is not executed through a formalized administration document. The BLM Moab District is hoping to have one completed within the next five years, but progress towards that goal is usually restricted by the need to deal with emergency and safety situations on the river first (M. Peterson, BLM, personal communication). Instead, management is primarily guided by the series of Federal Register notices that have been published throughout the past couple of decades.

Like Desolation Canyon, Westwater Canyon receives substantial recreational use, and thus a lottery system is in place to allocate permits fairly. Permits for private and commercial use are required year-round to float through Westwater Canyon. Applications for permits can be obtained by calling or writing the BLM Moab Field Office. They can also be downloaded from the BLM Moab Field Office website. The applications must be received by the last day in January of the year an applicant wishes to float in order to include it in the February lottery. The BLM does not accept e-mailed or faxed applications (BLM Undated b).

Permit fees are assessed only during the high season of March 1 to October 31. These fees must be paid thirty days in advance of the launch or else the trip is cancelled and the launch date filled by another applicant. If an applicant does not receive a launch date, it is possible to obtain one when others are cancelled. Cancellations occur frequently. Therefore, it is relatively easy to access the river. Launch dates during the non-fee season are even easier to secure and the BLM requests that applications for permits be filed three weeks in advance. These permits may not be transferred or traded in any way and they must be shown upon request at the launch site (BLM Undated b).

Boaters floating through Westwater Canyon must abide by the *BLM 1999 River Use Stipulations* described previously. Supplemental stipulations for Westwater Canyon alone include only one night of camping (must be night of launch date) at mile 124.5 or mile 112.5. Campsites must be reserved and they will be assigned to boaters by the BLM (BLM 1999a).

In order to protect wildlife, boaters may not use motors to travel upstream from Westwater Ranger Station and Cisco Landing. Secondly, motorized travel is not allowed from Cisco Landing to two miles downstream. Finally, no one is allowed to camp on the two-mile stretch just below Cisco Landing (BLM 1999a).

Some cautions are also addressed in the *1999 River Use Stipulations*. Novice boaters are highly recommended not to float Westwater Canyon due to previous drownings. People are asked to be prepared for warm or cold and wet or dry weather to prevent heat exhaustion or hypothermia. Finally, the BLM advises boaters to float the “right channel around the large island just below Cisco Landing” after passing Cisco Landing (BLM 1999a).

Part of the Westwater Canyon is located in a Wilderness Study Area. Several other portions of land contiguous to the Westwater WSA were identified in the 1996-1998 Utah BLM inventory to contain wilderness characteristics as well (BLM 1999g). Additionally, the Colorado River is being considered for Wild and Scenic River designation (BLM Undated b).

### ***Colorado River – Daily***

The “Daily” section of the Colorado River is located downstream from Westwater Canyon and runs alongside highway 128 from Hittle Bottom to Takeout Beach. This section of the Colorado River is managed under the *Recreation Area Management Plan for Utah’s Colorado Riverway* (BLM

1992). In general, this plan seeks to “to provide for multiple uses on the Public Lands, while balancing conflicts between renewable and nonrenewable resources and incorporating the necessary constraints to protect renewable resources from irreversible decline.”

To reach this goal, special rules for boaters are in place in order to minimize impacts. These rules are practically identical to the *1999 BLM River Use Stipulations* for Westwater Canyon, Desolation Canyon, and the San Juan River. Boaters must pack out all trash and human waste. Reusable and washable toilets must be brought and used in places where facilities are not provided. Campfires must be made within the bounds of existing fire metal rings, but barbecues and fire pans may be used as well. Driftwood is the only acceptable form of firewood. Vehicles are only allowed to drive on roads and trails that already exist, and camping is only allowed in existing developed campgrounds. Throughout the Colorado Riverway in general, people are not allowed to camp overnight at Negro Bill Canyon Trailhead, Big Bend Beach and Picnic Area, Take-out Beach, Sandy Beach, Rocky Rapid, and Hittle Bottom outside of the designated camping area (BLM Undated b).

The Recreation Area Management Plan also seeks to ease sanitation problems by building restrooms along the river at Hittle Bottom, Upper Onion Creek, Big Bend, Negro Bill Canyon, Goose Island, and JayCee Park. Developed picnicking sites will continue to be kept up but, since trips are generally only a day long or less, and the river runs along the highway, private permits for floating are not needed (BLM Undated b).

### ***San Juan River***

Management of the San Juan River from Sand Island to Clay Hills is accomplished through an agreement between the BLM and the National Park Service. The BLM manages the river from

Montezuma Creek to Honaker Trail and the NPS manages the river from Honaker Trail to Clay Hills Crossing. The two agencies confer, from time to time, in order to consensually agree to rules and the permitting process on the San Juan (40 FR. § 10).

River recreation management policy is primarily guided by notices in the Federal Register as well as the 1991 *Resource Management Plan Record of Decision and Rangeland Program Summary for the San Juan Resource Area*. While the resource plan does not outline all aspects of river recreation, the BLM plans to complete another guiding document within the next year or two that would specifically address the administration of recreation and river running on the San Juan River (K. Willis, BLM, personal communication). An aspect of the resource management plan that potentially affects recreation is the San Juan's status as a candidate for Federal Study River for Wild and Scenic River specification. Until Congress accepts or rejects that designation, "BLM guidance provides that eligible rivers be afforded adequate interim protection" (BLM Undated c). The San Juan was also included in the Utah BLM wilderness inventory. The inventory concluded that one contiguous segment along the river possessed wilderness characteristics. However, this area will not be managed differently until the BLM recommends it as a WSA (BLM 1999f).

Use regulations are addressed by the *1999 River Use Stipulations*. In addition to those measures that apply to all three river segments (San Juan River, Westwater Canyon and Desolation Canyon), the San Juan River has specific supplemental stipulations. For example, all trip leaders are required to register their groups for a campsite if they would like to make use of one. Groups can register themselves at a metal box located downstream of the Mexican Hat bridge. At the Slickhorn A, B, C, D, and E campsites and the campsites at Grand Gulch, Trimble Camp, Oljeto Wash, and Steer

Gulch, camping is limited to one night per group during the high use season (March 1 to October 31). Overnight camping is not allowed at Butler Wash Petroglyph. Pets are also not allowed and firearms may not be used downstream from Mexican Hat, except during the hunting season. o boats may be used in the Slickhorn pools, and as usual, all Utah Boating Act safety rules apply (BLM 1999a).

The south side of the river is administered by the Navajo Indian Tribe. If boaters wish to camp or hike on that side of the river, a permit must be obtained from the Navajo Parks and Recreation Department. Camping along the San Juan on the Navajo side of the river costs five dollars per person per night. Similar rules such as carrying out trash, using washable and reusable toilets, and generally respecting the land apply on the Navajo as well as the BLM lands (Navajo Nation 1998).

Permits are required all year long to float the San Juan River. However, fees are only assessed from March 1 to October 31. To obtain an application for a permit, one must call or write to the BLM Monticello field office. Once again, permits are allocated through a lottery process. hile obtaining a permit is fairly competitive during the summer months, boaters will often cancel or fail to pay their fees on time. Therefore, there are usually spots open for those who were not lucky enough to be drawn in the lottery. Applications are due before the end of January for inclusion in the lottery and if an applicant is awarded a launch date, fees must be paid within thirty days to avoid forfeiture (BLM Undated c).



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## **IV-B. RIVER RUNNERS' ATTITUDES TOWARD MANAGEMENT POLICY**

### ***Introduction***

When land managers make decisions, it is important that the public's attitudes toward resource policies be considered. Public opinions do not dictate management, but they can provide managers with a feel for how new administrative initiatives might be received. Additionally, public opinion can alert managers to problems that are occurring or will occur on the land so that they may be addressed or mitigated.

In the case of river managers on Utah Bureau of Land Management (BLM) rivers, public opinion or visitor surveys can be useful for a variety of reasons. Surveys can provide managers with an idea of perceived environmental impacts on or around the river, they can indicate whether crowding or conflict problems exist, and they also can also indicate whether the river managers are meeting public demand and expectations.

In the past, Utah BLM river managers had limited resources for obtaining public opinion about river management. In fact, visitor survey information was only available for two Utah BLM river segments: Desolation Canyon on the Green River and Westwater Canyon of the Colorado River. These surveys were completed in 1975.

Updated information was gathered through a river boater survey that was conducted by researchers with the Department of Forest Resources and the Institute for Outdoor Recreation and Tourism at Utah State University (USU) during the summer of 1999. The objectives of the new visitor study were to provide updated and standardized social data on nine Utah BLM river segments. An additional goal was to use this visitor study to update its Utah river information database, which contains information about use, values, and experiences of boaters. This section presents an analysis of survey items related to boater's attitudes towards management.

### ***Survey Method***

The initial portion of the USU visitor study gathered information through intercept surveys. Field technicians were posted at ten river take-outs and systematically sampled boaters on nine river

segments: San Juan River Upper; San Juan River Lower; White River; Green River Desolation; Green River Daily; Green River Labyrinth; Green River Brown's; Colorado River Daily; and the Colorado River Westwater. In order to make sure that boaters floating any particular segment had an equal opportunity of being selected, differences in favorable river running conditions between the segments were taken into consideration during the sampling process.

As boaters came off the river, they were asked to complete a two-page survey. Roughly 95% (2,248 out of 2,360) of the people encountered agreed to fill out the survey. Those boaters who participated in the intercept survey were then asked to fill in their name and address if they were willing to complete a more comprehensive mail survey. Approximately 64% (1,428 out of 2,248) of those who filled out the intercept survey agreed to participate in the comprehensive study. Of those that agreed to complete the mail survey, about 56% (802 out of 1428) responded.

The number of people that actually completed the mail survey for each of the river segments is as follows: 39 on the San Juan Upper; 59 on the San Juan Lower; 23 on the White River; 49 on the Green Brown's; 119 on the Green Desolation; 54 on the Green River Labyrinth; 45 on the Green Daily; 159 on the Colorado Daily; and 214 on the Colorado Westwater. People who floated both the upper and lower sections of the San Juan River were also analyzed as a distinct river segment population ( $n = 41$ ).

### ***Data Analysis***

The following information focuses on results obtained from the mail survey (Appendix A). More specifically, data from Part III of the mail survey (River Management Preferences) were analyzed since they provided floater's input on river recreation management and planning. Results from questions 25, 26, 27, 28, 29, 31, 32, and 34 were deemed to be of particular interest to river managers when formulating river recreation management plans and policies.

One-way ANOVA statistical tests were performed to uncover significant differences in mean scores between floaters on the different river segments. Each river segment was considered to have a distinct population of river runners, and differences between those samples' mean scores were considered significant at  $p < 0.05$ . Additionally, tests for internal reliability of the questions' scales using

Cronbach's Alpha scores were calculated for the multi-item questions 25, 27, and 32 (Appendix A). For question 25,  $\alpha = 0.881$ , which shows substantial reliability. For question 27,  $\alpha = 0.679$ , which also indicates reliability. Since the survey instrument divided question 32 into three distinct sections, alpha scores were calculated for four problem characteristics: "on the river" ( $\alpha = 0.842$ ), "at launches and take-outs" ( $\alpha = 0.772$ ), and "at campsites along the river" ( $\alpha = 0.793$ ). Cronbach's score for all of the groups combined was extremely high ( $\alpha = 0.910$ ), indicating strong internal reliability.

The remainder of this section discusses the differences and/or similarities between river runners on the different segments for questions 25, 26, 27, 28, 29, 31, 32, and 34. Summary tables are provided at the end of the section for each of the eight groups of questions.

### ***River Management Priorities***

Question 25 contained a list of 24 river management preference items that respondents were asked to rate along a priority scale where 1 = lowest priority and 7 = highest priority (Appendix A). The list of 24 questions fell into four management priority categories: providing information; environmental/cultural resources protection; improving/providing more facilities and services; and crowding issues or concerns.

*Providing more information.* The items relating to providing more information consisted of five statements: "provide river running safety information at put-ins;" "provide river trip information signs at put-ins;" "provide information about rivers' natural and cultural history;" "provide information on how floaters can reduce plant and soil impacts;" and "provide boating etiquette information" (Table IV-B.1). Survey results indicated no statistically significant differences in responses among the river segments for providing safety, river trip, and boating etiquette information.

Boaters on all ten river segments felt that providing safety information required only medium priority (mean range = 3.35 - 4.22). The Colorado Daily had the highest mean score of 4.22, followed by the Green Desolation at 4.01. The Green Labyrinth had the lowest mean score of 3.35 and the rest

of the river segments had mean scores range from 3.39-3.90.

Providing river trip information was also considered a medium priority with mean scores on the ten river segments ranging from 3.48 - 4.26 (no significant difference). Once again, the Colorado Daily had the highest mean score of 4.26. The Green Daily (4.07) and the San Juan River Both (4.05) had the next two highest mean scores. The White River had the lowest mean score at 3.48 (Table IV-B.1).

Providing river history information varied significantly ( $F = 2.193$ , d.f. = 9,  $p = 0.021$ ) from medium to high importance among the ten river segments. The San Juan Upper had the highest mean score at 4.97. The Green Brown's (3.64) and Green Daily (3.79) had the lowest mean scores. The other segments had mean scores around the midpoint of the priority scale (Table IV-B.1).

Providing information on reducing impacts showed significant statistical differences among the river runners on the different segments ( $F = 3.927$ , d.f. = 9,  $p = < 0.001$ ). The San Juan Upper segment had the highest mean score at 5.78. The other two segments of the San Juan River, Green Desolation, and Colorado Westwater also had mean scores above five. The Green Daily (4.10) and the Green Brown's (4.29) had the lowest mean scores. The rest of the river segments had mean scores around four. Out of all five questions, information on reducing impacts showed the highest overall mean scores, suggesting that it is the highest priority (Table IV-B.1).

Providing boating etiquette information had the highest priority on the San Juan River Both segment (mean = 5.0). At a mean score of 3.92, it had the lowest priority on the Green Labyrinth. The other river segments had scores ranging from 4.17-4.70. Differences in mean scores were not statistically significant among the river segments.

*Environmental/cultural resources protection.* Another category of surveyed items was

whether river managers should place a priority on environmental and cultural resources protection. This category consisted of five statements: “prevent impacts to natural vegetation on shore;” “prevent impacts to soils on shore;” “protect wildlife;” “protect historical/cultural resources and artifacts;” and “control non-native vegetation on shore” (Table IV-B.2). In general, floaters on all ten river segments placed a high priority on all five resource protection items.

Mean scores showed no statistically significant differences between the nine river segments for protecting shore vegetation, soils, and controlling non-native vegetation. In the results for protecting shore vegetation, San Juan Upper (5.24) and Green Desolation (5.02) had the highest mean scores. At a mean score of 4.43, Green Daily floaters gave protecting shore vegetation the lowest priority. The rest of the river segments had mean scores ranging from 4.45-4.91 (Table IV-B.2).

Protecting shore soils also received the highest score on the San Juan Upper (mean = 5.18). The Green Daily had the lowest mean score at 4.24. Mean scores for the remaining river segments ranged from 4.31-4.97.

The priority to protect wildlife showed significant difference among the river segments ( $F = 1.940$ , d.f. = 9,  $p = 0.044$ ). The San Juan Upper had a mean high score of 6.03, but the Green Daily and Brown’s had significantly lower mean scores of 4.95 and 4.98. The other mean scores ranged from 5.47-5.79 (Table IV-B.2).

The priority to protect historical artifacts were also statistically significant among the segments ( $F = 3.530$ , d.f. = 9,  $p = <0.001$ ). San Juan Upper boaters had the highest mean score of 6.34 whereas people on the Green Brown’s had the lowest score (4.67). The other river segments had mean scores varying from 5.31-5.97.



Controlling non-native vegetation had the highest priority score on Green Desolation (mean = 5.17) followed San Juan Upper at 5.16. At 4.09, the White River had the lowest mean score. Mean scores for the remaining segments ranged from 4.29-4.97 (Table IV-B. 2).

*Improving/providing more facilities/services.* The third category was whether priority should be placed on improving or creating additional facilities/services. This category was made up of nine statements: “provide toilets at river put-ins and take-outs;” “provide trash receptacles at take-outs;” “increase parking spaces at put-ins and take-outs;” “provide picnic areas along river;” “provide cleaner toilets;” “better campsite reservation system;” “provide more disabled access facilities” “provide additional campsites along rivers;” and “provide more river managers to patrol rivers” (Table IV-B.3). In general, except for providing more toilets at the put-ins and take-outs and providing trash receptacles at the take-outs, boaters felt that improving or providing additional services/facilities should be low priority for river managers.

Providing toilets at the river put-ins and take-outs varied significantly among the river segments ( $F = 2.370$ , d.f. = 9,  $p = 0.012$ ) and was a high priority on all, except for the White River where the mean score was 3.68. The Colorado Daily had the highest mean score at 5.13. The Colorado Westwater, Green Desolation, and San Juan River Both had mean scores above five. The other river segments had mean scores between 4.41-4.70.

Providing trash receptacles at take-outs also differed significantly ( $F = 3.478$ , d.f. = 9,  $p = < 0.001$ ) and was a high priority for all segments except for the White River with a mean score of 3.68. The Colorado Daily had the highest mean score at 5.23. The rest of the river segments had means scores between 4.08-4.89 (Table IV-B.3).

While the rest of the facilities/services items received low priority mean scores in general, the mean scores among the river segments varied significantly for most of the statements. For example, mean scores for additional parking at the put-ins and take-outs varied significantly ( $F = 3.486$ , d.f. = 9,  $p = < 0.001$ ) between river runners on the different segments. The Colorado Daily had the highest mean score of 3.36 and the lowest score was on the San Juan River Upper (2.41). The rest of the river segments had means scores between 2.43-2.98.

Mean scores for providing additional picnic areas differed significantly between segments ( $F = 14.405$ , d.f. = 9,  $p = < 0.001$ ). The Colorado Daily had the highest mean score of 3.29 and San Juan River Both had the lowest mean score of 1.68. Mean scores on the rest of the segments varied from 1.74-3.20 (Table IV-B.3).

Placing a priority on cleaner toilets differed significantly ( $F = 3.575$ , d.f. = 9,  $p = < 0.001$ ) between river runners on the different segments. Mean scores ranged from a low mean score of 2.74 on the White River to a high of 4.07 on the Colorado Daily. Most of the remaining river segments had mean scores between 2.87-3.51.

Mean scores for placing a priority on creating a better campsite reservation system showed statistically significant differences between river segments ( $F = 5.244$ , d.f. = 9,  $p = < 0.001$ ). On the San Juan River Lower, creating a better campsite reservation system was a high priority with a score of 4.77, but it was not a high priority for the other segments which had means from 2.98-3.65. The Green Daily had the lowest mean score of 2.95.

Mean scores for placing a priority on better disability access facilities were fairly low for all river segments, but scores still varied significantly ( $F = 2.782$ , d.f. = 9,  $p = 0.003$ ). The Colorado Daily,

which had a mean score of 3.75, was greater than the other river segments. The Green Daily, Brown's, and the White River had the lowest mean scores of 2.78, 2.79, and 2.87 respectively. The rest of the mean scores were between 3.02-3.49 (Table IV-B.3).

Mean scores for priority on additional campsites and more river rangers did not vary significantly among the river segments. For both, mean scores ranged from twos to threes. At a score of 3.81, additional campsites had the highest priority on the San Juan River Lower and the lowest on the Green Brown's (2.95). More river rangers had the highest priority on the Green Labyrinth (3.49) and it had the lowest priority on the Green Brown's (mean = 2.74).

*Addressing crowding issues and concerns.* The fourth category focused on whether river managers should place a priority on managing the number of people on the rivers. This category consisted of five statements: "achieve better spacing among groups on the river by assigning time of day when each group may begin its trip;" "increase number of daily launch permits;" "reduce number of daily launch permits;" "reduce crowding along heavy use areas;" and "provide separate outfitter and private take-outs to reduce congestion" (Table IV-B.4). All five statements had means that were statistically significant.

Placing a priority on group spacing varied significantly ( $F = 3.071$ , d.f. = 9,  $p < 0.001$ ) between the river runners on the different river segments. The Colorado Daily had the highest mean score (3.40) and the Green Daily had the lowest mean score (2.10). (The other river segments had means between 2.41-3.34).

Mean scores for placing a priority on increasing daily launch permits showed statistical significance ( $F = 5.071$ , d.f. = 9,  $p = < 0.001$ ) between segments. Both sections of the Colorado River

(Daily and Westwater) had the highest mean scores (2.65, 2.79 respectively). The Green Desolation had the lowest mean score (1.78).

Placing a priority on reducing daily launch permits varied significantly ( $F = 2.890$ , d.f. = 9,  $p = 0.002$ ) between river runners on the different river segments. The Green Brown had the highest mean score (3.84). The Green Daily had the lowest mean score (2.23). The other river segments had means scores between 2.72-3.41 (Table 4).

Floaters on half of the river segments indicated that reducing crowds was a medium to high priority and the other five felt that it was a low to medium priority ( $F = 4.708$ , d.f. = 9,  $p = < 0.001$ ). The Green Brown's and Desolation segments had the highest mean scores (4.59, 4.58 respectively). The Green Daily had the lowest mean score of 2.95, and the remaining segments had means ranging from 3.52-4.34 (Table IV-B.4).

Mean scores for placing a priority on providing separate take-outs for commercial and private boaters varied significantly between river segments ( $F = 1.940$ , d.f. = 9,  $p = 0.044$ ). The Green Desolation had the highest mean score (3.66). The Green Daily had the lowest mean score (2.79).

### ***Physical Impacts Caused by the Number of People***

Question 26 asked river runners to "rate the physical impacts caused by the number of people who float this river." Respondents were asked to rate impacts on an acceptability scale where 1 = extremely low, 2 = moderately low, 3 = currently acceptable, 4 = moderately high, and 5 = extremely high. The mean comparisons indicated statistically significant differences ( $F = 2.575$ , d.f. = 9,  $p = 0.006$ ). The Green Brown's had the highest mean score of 3.16 and the Green Labyrinth had the lowest mean (2.37). The rest of the river segments had means ranging from 2.52-2.86 (Table IV-B.5).

Table IV-B.5 shows a comparison of the percent of respondents that indicated the relative acceptability of physical impacts. The results indicate that a majority of people surveyed felt that the impact levels were currently acceptable or low. Floaters on the Green Brown's were the most concerned about physical impacts on the river. Almost a third (31.8%) of respondents indicated that the impacts on the Green Brown's were moderately high or high. The Green Labyrinth had the lowest percentage (9.8% felt that physical impacts were moderately high or high).

### ***Support for River Regulations***

Question 27 assessed respondents' knowledge of current river running rules on each river segment and also measured their support for those rules. The question asked them to look at a list of rules and then "indicate if you think it is or is not a rule on the river segment you floated" (Table IV-B.6). The list of regulations consisted of: limits on the number of trips allowed per day, limits on the number of people per group, limits on the number of boats per group, whether firepans are required, and prohibition on pets. Other regulations listed were whether the segment required floaters to carry out trash or human body waste, prohibition on beach fires along the river, whether camping was only allowed at designated sites, and whether each group was assigned where they camp (Table IV-B.6). The top figures in the cells in Table IV-B.6 report the percentage of respondents that thought the regulation was a rule on the river segment they floated.

The second half of the question asked floaters to "indicate your level of support or opposition to that type of rule for the segment." Respondents were given choices from 1-4 where 1 = strong support and 4 = strong opposition. The outcome for this question (bottom percentages in the cells in Table 6) indicate support or strong support for the regulations. For example, the requirement to carry

out trash had almost 100% support on every river segment. There were statistically significant differences between river segments for seven out of the ten regulations when testing mean score differences using ANOVA. The three regulations that did not show statistically significant differences between segments were limits on the number of boats per group, prohibition on pets, and the requirement that floaters carry out their trash.

Support for limiting the number of trips allowed per day varied significantly between river runners on the different segments ( $F = 8.807$ , d.f. = 9,  $p < 0.01$ ). Several river segments supported the rule with an 80, 90, or 100% majority. For example, people who floated both sections of the San Juan had 100% support for this regulation. The Green Daily however, varied significantly from the other river segments with only a 61.15% majority. At 75%, the White River had the second lowest level of support (Table IV-B.6).

Support for limiting the number of people allowed in a group also differed significantly between river segments ( $F = 8.502$ , d.f. = 9,  $p < 0.01$ ). The White River had the highest level of support (100%), while the Green Brown's had the lowest level of support at 68.8%. The Green Daily and Colorado Daily also had relatively low levels of support (72.8%, 79.7% respectively), while the remaining segments supported the measure by 80-100% (Table IV-B.6).

Requiring firepans had a significant difference in support between river segments ( $F = 3.457$ , d.f. = 9,  $p < 0.01$ ). The lowest level of support was on the Green Brown's (86.7%). However, the remaining river segments supported the measure by 90% or more. The Colorado Westwater, at 99.4%, had the highest level of support (Table IV-B.6).

Requiring river runners to carry out human waste had statistically significant different levels of

support between river segments ( $F = 4.189$ , d.f. = 9,  $p = < 0.01$ ). At 100%, the White River had the highest support for the regulation. At 81.5%, the Green Daily had the lowest. The Colorado Daily and the Green Brown's also had lower levels of support (88.1%, 88.5% respectively) while the remaining river segments had over 90% support (Table IV-B.6).

Prohibiting beach fires was another regulation that had significant levels of support ( $F = 2.380$ , d.f. = 9,  $p = 0.012$ ). For example, the San Juan Both river segment had the highest with 96.9% support, while the Colorado Daily had the lowest (68.9%). The remaining segments had between 70-89% support (Table IV-B.6).

Support for camping only at designated sites differed significantly between river segments ( $F = 2.658$ , d.f. = 9,  $p = 0.005$ ). The Green Daily, Green Brown's, and the San Juan Both had the highest levels of support (95.6%, 91.9%, 92.3% respectively). At 71.4%, the White River had the lowest level of support, and the remaining river segments supported the regulation with a range between 75-90%.

Support for groups being assigned to a particular campsite had the greatest lack of support between river segments ( $F = 4.154$ , d.f. = 9,  $p = < 0.001$ ). In fact, the majority of respondents on the Green Labyrinth did not support the rule (support = 36.4%). People on the White River and the Green Desolation only had 50% support, while the other river segments supported the measure by a 79-91.5% majority. The Colorado Westwater had the highest level of support (91.5%) (Table IV-B.6).

### ***Feelings about the Number of People Seen***

Question 28 was designed to measure how satisfied floaters were with the number of people they encountered on the river. The question asked those surveyed to indicate "which of the following best describes your feelings about the total number of people you saw while you were on the river."



The options to choose from ranged from 1 = far too many, 3 = about the right number, and 5 = far too few. Mean scores varied from a low of 2.60 on the Green Brown's to a high of 2.95 on the Colorado Westwater. In general these mean scores indicate that respondents are satisfied with the number of people they encounter on each river segment. In fact, when the mean scores were broken down into percentages for each response, "about the right number" was chosen by a large majority of respondents. The Green Brown's was the exception. While 60% did feel that they encountered "about the right number," there were 40% who felt there were "too many" people on the river (Table IV-B.7).

Question 28 then had a follow-up which was answered by those "who felt that there were too many people on the river" during their trip. This question asked that group if they thought that there should "have been a restriction on the number of people that could use the river." Answers choices were 1 = unsure, 2 = definitely no, 3 = about the right number, 4 = probably yes, and 5 = definitely yes.

Of those that thought there were "too many" on the river, the majority on each river segment felt that there "probably" or "definitely" should be restrictions on the number of river runners. The San Juan Upper respondents had 100% of the sub-population thinking there should be restrictions. The Green Labyrinth, at 57.2%, had the lowest percentage agreeing that there "probably" or "definitely" should be restrictions on the number of users. Even with the lowest percentage of the river segments however, the Green Labyrinth still had a majority agreeing to the restriction (Table IV-B.7).

#### ***Acceptable Number of People and Parties***

Question 29 asked all respondents what they thought would be "an acceptable number of people and parties to see on the river per day." Median values for the number of people differed

significantly between the river segments ( $F = 4.897$ , d.f. = 9,  $p = < 0.01$ ). The Colorado Westwater had the highest median acceptable number (median = 153). At 101.5 people, the Colorado Daily had the next highest average and the San Juan Upper had the lowest median at 26 people. The White River also had a relatively low median (29) (Table IV-B.8).

The range of acceptable number of people also varied widely among river segments. For example, Colorado Westwater had acceptable numbers of people ranging from 6 to 300. The Colorado Daily also had a fairly wide range (numbers ranged from 3 to 200). On the other hand, the San Juan Upper and the White River had relatively small ranges (2-50, and 8-50 respectively) (Table IV-B.8).

The median acceptable number of parties did vary significantly among the segments. The Colorado Daily had the highest median at 51. The Green Brown's had the next highest median with 38.5 parties and the Green Desolation, Green Labyrinth, and White River had the lowest party averages (4.5, 3, and 4 respectively). The range of party numbers varied widely for a couple of river segments. For example, respondents' answers on the Colorado Daily varied from 0 to 102, but the range for the Green Labyrinth was only 1-5 (Table IV-B.8).

### ***How River Managers Should Focus Their Efforts***

Question 31 was designed to find out in what general area river runners felt managers should focus most of their efforts on: visitor services or land and river protection. Respondents were asked to indicate which best represented their feelings. Choices were 1 = much more focus on visitor services, 2 = more focus on visitor services, 3 = an even mix of protection and providing visitor services, 4 = more focus on protection of land and river, and 5 = much more focus on protection of the land and river

area (Table IV-B.9).

Floaters on Green Brown's had the highest percentage feeling that there should be an even mix between visitor services and river protection (62.2%). At 35.1%, boaters on the Green Desolation had the lowest level of support for an even mix, but had the highest level of support for more or much more focus on protection of the land and river area (63.2%). Floaters on the Green Brown's had the lowest level of support for more or much more focus on protection of the land and river area (31.3%). At 11.4%, boaters on Green Daily had the highest level of support for more or much more focus on visitor services, while San Juan Upper had the lowest level of support (0.0%) (Table IV-B.9).

#### ***Problems on the River, at Launches or Take-outs, and Campsites***

Question 32 contained a list of potential problems that could occur on the river, at launches or take-outs, and campsites along the river. The questionnaire asked respondents to rate these potential problems on a scale from 1-4, where 1 = not a problem, 2 = a small problem, 3 = a moderate problem, and 4 = a big problem. As in the analysis of question 25, the "problems on the river" questions were divided into categories. Problems at launches or take-outs and problems at campsites along the river were placed into their own separate categories.

*Problems on the river.* The five categories of problems on the river consisted of human-caused environmental/cultural resources impacts; crowding problems/user conflicts; biophysical conditions; detractions; and services/facilities.

#### ***Human-caused environmental/cultural resources impacts***

The human-caused environmental/cultural resources impacts category consisted of six potential problems: "human-caused vegetation loss;" "litter along the river;" "destruction/defacing of historic

resources;” “soil erosion or trampling on shore;” “graffiti or other vandalism;” and “water pollution” (Table IV-B.10). In general, many of these items were considered to be a small problem on all of the river segments. There were a few exceptions in that some of these items were considered a moderate problem on certain segments. Means for each segment showed significant difference for all six items.

Mean scores for human-caused vegetation loss showed significant differences between river runners on the different segments ( $F = 1.969$ , d.f. = 9,  $p = 0.040$ ). Means ranged from a low of 1.42 on the Green Daily to a high of 2.00 on the San Juan Upper.

Problems with litter along the river varied significantly between segments ( $F = 4.807$ , d.f. = 9,  $p = < 0.001$ ). San Juan Both had the highest mean (2.27). At a mean of 1.48, the Colorado Westwater had the lowest score, and the other segments had means between 1.53-1.83 (Table IV-B.10).

Mean scores for destruction of historical resources showed statistically significant differences between segments ( $F = 10.332$ , d.f. = 9,  $p = < 0.001$ ). Destruction of historical resources was more of a problem on San Juan Upper and San Juan Both (2.13, 2.08 respectively). It was not considered a problem on the White River, which had the lowest mean score of 1.00. The remainder of the river segments had mean scores ranging from 1.13 to 1.65, indicating that the destruction of historical resources is not considered much of a problem (Table IV-B.10).

Soil erosion on the shore was the largest problem on San Juan Upper and Both sections (2.17, 2.00 respectively). The Green Brown’s and Green Daily had the smallest means (1.50). The other river segments had means between 1.66-1.77, which indicates that river runners perceive that soil erosion is a small problem ( $F = 2.843$ , d.f. = 9,  $p = 0.003$ ).

Vandalism on the San Juan Both segment had the highest mean (1.92). With the lowest mean of

1.05, vandalism was not considered a problem on the White River. Mean scores varied significantly between segments ( $F = 11.122$ ,  $d.f. = 9$ ,  $p = < 0.001$ ). The remaining river segments had means from 1.11-1.89.

Mean scores for water pollution showed statistically significant differences between river runners on the different segments ( $F = 1.988$ ,  $d.f. = 9$ ,  $p = 0.038$ ). Water pollution was a small problem on the Green Labyrinth which had the highest mean score (1.59). San Juan Upper had the lowest mean (1.19). The remaining river segments had means between 1.20-1.41 (Table IV-B.10).

#### *Crowding problems/user conflicts*

The crowding problems/user conflicts category consisted of twelve items: “too many motorized watercraft;” “conflicts between river runners and motorboaters;” “jet ski encounters;” “conflicts between different groups of boaters;” “rude, inconsiderate boaters;” “too many boats on the river;” “too many people;” “amount of time in sight or sound of other parties;” “inexperienced boaters on the river;” “large groups of boaters;” “too many river runners;” and “time delays at rapids” (Table IV-B.11).

Having too many motorized watercraft and conflicts between rafters/motorboaters were not problems on any of the river segments, and mean scores did not vary significantly. Mean scores for too many motorized crafts ranged from a low of 1.00 on the White River to a high of 1.36 on Green Labyrinth. Mean scores for conflicts between rafters/motorboaters ranged from a low of 1.00 on the White to a high of 1.21 on Colorado Daily.

Jet ski encounters were also not a problem on any of the river segments. However, responses did vary significantly ( $F = 2.444$ ,  $d.f. = 9$ ,  $p = 0.010$ ). The Colorado Daily had the highest mean score of 1.22. The San Juan Upper, the White River, and the Green Brown’s and Green Labyrinth all had the

lowest mean scores of 1.00.

Mean scores for conflicts between boater groups showed statistically significant differences between river runners on the different segments ( $F = 5.809$ ,  $d.f. = 9$ ,  $p = < 0.001$ ). The San Juan River Both segment had the highest mean score, followed by the Green Brown's (1.50, 1.47 respectively). At 1.02, the Green Daily had the lowest mean score. The rest of the river segments had means ranging from 1.08-1.35 (Table IV-B.11).

Problems with rude and inconsiderate boaters varied significantly between river segments ( $F = 2.630$ ,  $d.f. = 9$ ,  $p = 0.005$ ). The White River and the Green Brown's had the highest means (1.52, 1.43 respectively). The San Juan Both segment was next in line with a mean score of 1.40. At 1.03, San Juan Upper had the lowest mean score.

Problems with having too many boaters on the river showed statistically significant differences between river segments ( $F = 2.287$ ,  $d.f. = 9$ ,  $p = 0.016$ ). The Green Brown's had the highest mean score (1.73). The Green Daily had the lowest mean (1.20), and the remaining segments had mean scores between 1.29-1.45.

Encountering too many people on the river was a small problem for every river segment and results did not vary significantly. The Green Brown's had the highest mean score (1.80). The Green Labyrinth and Green Daily had the lowest mean scores of 1.47 (Table IV-B.11).

Problems with the amount of time in the sight and sound of others were relatively small and did not vary significantly between river runners on the different segments. The Green Brown's had the largest mean score (1.73). At an average of 1.34, the Green Daily had the lowest mean. The remaining river segments had scores ranging from 1.35-1.56.

Problems with inexperienced boaters varied significantly between the river segments ( $F = 4.645$ ,  $d.f. = 9$ ,  $p = < 0.001$ ). The Green Brown's had the highest mean of 1.80 followed by the White River with a mean score of 1.61. At 1.19, San Juan Lower had the lowest mean. The other segments had scores ranging from 1.23-1.56 (Table VI-B.11).

Mean score for large groups showed statistically significant differences between river segments ( $F = 2.214$ ,  $d.f. = 9$ ,  $p = 0.019$ ). The White River and Green Brown's had the highest mean scores (1.96, 1.78 respectively). At 1.37, Green Daily had the lowest mean score. The remaining river segments had scores from 1.39-1.59.

Encountering too many river runners varied significantly between river runners on the different segments rivers ( $F = 2.026$ ,  $d.f. = 9$ ,  $p = 0.034$ ). The Green Brown's had the highest mean score (1.71). The San Juan Upper had the lowest average of 1.19. The remaining segments had mean scores from 1.21-1.49, indicating that this was not a problem on the other segments.

Time delays at rapids were not a problem on any of the river segments. Mean scores did not vary significantly between river segments. The highest mean score was 1.18 on Colorado Daily and the lowest was 1.00 on Green Labyrinth (Table IV-B.11).

### *Biophysical conditions*

The biophysical conditions category consisted of seven different potential problems: "mosquitoes/insects;" "not enough rapids;" "too remote/secluded;" "too many dangerous rapids;" "poor fishing;" "too dangerous;" and "boating safety" (Table IV-B.12). Respondents were asked to rate this problem on a scale from 1 to 4, where 1 = not a problem and 4 = a big problem.

Problems with mosquitoes and insects varied significantly among the river segments ( $F =$



100.793, d.f. = 9,  $p = < 0.001$ ). The Green Desolation and Green Labyrinth sections had the highest mean scores (3.29, 3.28 respectively). osquitos/insects were also a small problem on the Green Daily (mean = 1.77). However, mosquitoes and insects were not a problem on the other river segments. The Colorado Daily had the lowest mean score of 1.34, and the other segments had means between 1.35-1.50.

Not enough rapids were a problem that showed statistically significant differences between boaters on the different river segments ( $F = 12.566$ , d.f. = 9,  $p = < 0.001$ ). The Green Daily, Colorado Daily, and San Juan Upper all had the highest mean scores (2.30, 2.21, 1.94 respectively). Boaters on the other segments did not have much of a problem with not enough rapids. The Green Brown's had the lowest mean score of 1.36, and other segments had means between 1.42-1.68 (Table IV-B.12).

None of the river segments had problems with the segment being too remote or secluded, and mean scores did not vary significantly. The mean scores ranged from a low of 1.00 on the White River and the San Juan River Both to a high of 1.07 on the Green Daily (Table IV-B.12).

Respondents also agreed that there were not too many dangerous rapids on any of the river segments. Mean scores did not vary significantly between river segments. Five river segments (San Juan Lower, San Juan Both, White River, Green Brown's, and Green Labyrinth) had a low mean score of 1.00 and three segments (San Juan Upper, Green Desolation, and Colorado Westwater) had the highest means of 1.03.

Poor fishing was also not a problem on any of the rivers. Results did show statistically significant differences between boaters on the different river segments ( $F = 4.582$ , d.f. = 9,  $p = < 0.001$ ). The Green Brown's had the highest mean score (1.24). The San Juan Upper and the White River both had

the lowest mean scores of 1.00.

Being too dangerous was not considered a problem by boaters on any of the river segments. Mean scores did not vary significantly between river segments. The highest mean score was 1.05 on Colorado Westwater and five segments (San Juan Upper, San Juan Lower, San Juan Both, White River, and Green Daily) had the lowest mean score of 1.00.

Boating safety was not considered a problem on any of the segments. Mean scores varied significantly between river segments however ( $F = 2.061$ , d.f. = 9,  $p = 0.031$ ). The White River, San Juan Both, and Colorado Westwater all had the highest mean scores of 1.27, 1.25, and 1.25 respectively. At 1.02, San Juan Lower had the lowest mean score (Table IV-B.12).

#### *Detractions*

The detractions category consisted of three components: “evidence of cattle;” “low flying aircraft;” and “noise” (Table IV-B.13).

Problems with cattle showed statistically significant differences between floaters on the different river segments ( $F = 7.943$ , d.f. = 9,  $p = 0.001$ ). The San Juan Upper and the White River had the highest means (2.30 for both). The Green Brown’s had the lowest mean score of 1.14. The remaining river segments had means from 1.37-2.00.

Problems with low flying aircraft varied significantly between river segments ( $F = 10.412$ , d.f. = 9,  $p = < 0.001$ ). The San Juan Lower had the highest mean score (1.75). The Green Brown’s and White River had the lowest mean scores of 1.00. The remaining river segments had means between 1.05-1.48.

Floaters on the different river segments did not consider noise to be much of a problem. The

San Juan Both had the highest mean of 1.41 and the Green Daily had the lowest mean of 1.16. The remaining river segments did not vary significantly and had means between 1.20-1.31 (Table IV-B.13).

### *Services and facilities*

The services and facilities section consisted of four items: “too many campfire rings;” “too few visitor services;” “lack of toilets;” and “not enough campsites” (Table IV-B.14).

Having too many campfire rings was not a problem, but mean scores did vary significantly between river segments ( $F = 2.155$ , d.f. = 9,  $p = 0.023$ ). The White River had the highest mean score (1.61). However, floaters on the other segments varied significantly from the White River and did not think that campfire rings were a problem. Mean scores ranged from a low of 1.12 on the San Juan Upper to 1.33 on the Green Desolation and Green Daily.

Problems with too few visitor services showed statistically significant differences between river segments ( $F = 2.773$ , d.f. = 9,  $p = 0.003$ ). Nevertheless, all of the river segments still had mean scores that reflected that too few visitor services was not a problem. Mean scores ranged from a low of 1.14 on the Colorado Westwater to a high of 1.41 on the Colorado Daily (Table IV-B.14).

Problems with lack of toilets varied significantly between boaters on the different river segments ( $F = 4.582$ , d.f. = 9,  $p = < 0.001$ ). The Colorado Daily had the highest mean score (1.67). The Colorado Westwater had the lowest mean score of 1.23 and the other segments had mean scores between 1.28-1.48.

Not having enough campsites was a problem that showed statistically significant differences between river segments ( $F = 9.961$ , d.f. = 9,  $p = < 0.001$ ). The Green Labyrinth had the largest problem with campsites not being available (mean = 2.02). The San Juan Lower and Both had the next

highest mean scores (1.28, 1.29 respectively). Boaters on Green Brown's had the smallest problem with a lack of campsites with a mean of 1.13 (Table IV-B.14).

*Problems at launches or take-outs.* In this section, respondents were asked to rate potential problems specifically related to boat launches or take-outs. This question asked people to rate if there were any problems with "litter or trash;" "too many people at the launch site;" "too many people at the take-outs;" "lack of information about the river;" "lack of trash receptacles;" "not enough parking;" "lack of toilets;" "lack of shelter/shade;" "lack of water;" and "vegetation and soil trampling" (Table IV-B.15).

Respondents were asked to rate these problems on a scale from 1 to 4, where 1 = not a problem, 2 = a small problem, 3 = a moderate problem, and 4 = a big problem.

Having too much litter or trash at the take-outs was not considered much of a problem and mean scores did not vary significantly between river segments. The San Juan Both had the highest mean score (1.68). The Green Brown's had the lowest mean score (1.28) and the other segments had mean scores ranging from 1.29-1.54.

Problems with too many people at the launch showed statistically significant differences between floaters on the different river segments ( $F = 4.815$ , d.f. = 9,  $p = < 0.001$ ). The Colorado Westwater, Green Desolation and Green Brown's all had the highest mean scores (1.83, 1.74, and 1.74 respectively). The Green Labyrinth had the lowest mean score of 1.27 (Table IV-B.15).

Problems with too many people at the take-outs did not vary significantly between rivers. The Green Desolation and the White River had the highest mean scores (1.74 for both). At an average score of 1.33, the Green Brown's had the lowest mean score.

Problems with lack of information about rivers varied significantly between river segments ( $F = 3.673$ , d.f. = 9,  $p = < 0.001$ ). The White River had the highest mean score (1.82). Mean scores for the other river segments ranged from a low of 1.27 on the San Juan Both to 1.61 on the Colorado Daily.

Problems with the lack of trash receptacles varied significantly between the river segments ( $F = 3.856$ , d.f. = 9,  $p = < 0.001$ ). The San Juan Both and Colorado Daily had the highest mean scores (1.75, and 1.71 respectively). The Green Brown's had the lowest mean score of 1.23, and the remaining river segments had mean scores from 1.32-1.55 (Table IV-B.15).

While mean scores between river segments varied significantly, not having enough parking was not a problem on any of the river segments ( $F = 2.687$ , d.f. = 9,  $p = 0.004$ ). The White River had the largest mean score of 1.43, and the Green Labyrinth had the lowest mean score (1.10).

A lack of toilets was a problem that showed statistically significant differences between river segments ( $F = 6.094$ , d.f. = 9,  $p = < 0.001$ ). The White River (mean = 1.65) and the Colorado Daily (mean = 1.59) had the highest mean scores. With the lowest mean score of 1.15, floaters on the Green Desolation did not have a problem at all with a lack of toilets. The remaining segments had means between 1.17-1.49 (Table IV-B.15).

Mean scores for lack of shelter or shade did not vary significantly between river segments. The San Juan Upper had the highest mean score of 1.68 and the Colorado Westwater had the lowest mean of 1.29.

Problems with lack of water at launches or take-outs varied significantly between rivers ( $F = 3.252$ , d.f. = 9,  $p = 0.001$ ). The San Juan Upper and Green Daily had the highest mean scores (1.80, and 1.83 respectively). The Green Brown's had the lowest average of 1.28, and remaining segments

had means between 1.37-1.68.

Mean scores for vegetation and soil trampling did not vary significantly between river segments. The Green Brown's had the lowest mean score of 1.47, while the other segments had means above 1.60. The White River had the highest mean score (1.91) (Table 15).

*Problems at campsites along the river.* In this section of the questionnaire, respondents were given a list of potential problems that might occur at campsites along the river and were asked to rate the extent that each might be a problem. These statements consisted of: "litter or trash in campsites;" "campsites are too remote/secluded;" "campsites too close to other parties;" "campsites damaged by previous visitors;" "difficulty finding an unoccupied campsite;" "too many groups passed my campsites;" "human caused erosion or bare ground at campsites;" "human damaged trees at campsites;" "human waste at campsites;" and "cattle droppings in campsite" (Table iv-b.16). A four-point scale was used where 1 = not a problem, 2 = a small problem, 3 = a moderate problem, and 4 = a big problem.

Trash at the campsites was not much of a problem for any of the river segments and mean scores did not vary significantly between river segments. The San Juan Lower had the lowest mean (1.26) and the Colorado Daily had the highest mean (1.57).

Problems with campsites being too secluded or remote showed statistically significant differences between floaters on the different river segments ( $F = 2.493$ , d.f. = 9,  $p = 0.009$ ). The San Juan Upper and Green Brown's had the lowest mean scores of 1.00, and the Green Labyrinth had the highest mean of 1.22. However, even the highest mean score was well below being a small problem (Table iv-b.16).

Problems with campsites being too close to others varied significantly between river segments

( $F = 3.396$ , d.f. = 9,  $p = < 0.001$ ). The Green Daily had the highest mean score (1.56), followed by the San Juan Both at 1.46. The White River had the lowest mean score of 1.00.

Mean scores for damaged campsites did not vary significantly between river segments. The Colorado Daily, Green Daily, and the White River had the highest mean scores (1.64, 1.63, and 1.62 respectively). The Green Brown's had the lowest mean score (1.05).

Mean scores for problems with finding open campsites varied significantly between river segments ( $F = 5.229$ , d.f. = 9,  $p = < 0.001$ ). The San Juan Both had the highest mean score (1.82). The San Juan Lower, Green Desolation, and Green Labyrinth also had relatively high mean scores (1.76, 1.70, and 1.71 respectively). At 1.16, the Green Brown's had the lowest mean score (Table IV-B.16).

Mean scores for problems with too many groups passing by campsites did not vary significantly between river segments. Means ranged from a low of 1.11 on the Green Brown's and the Colorado Westwater to a high of 1.44 on the Green Daily.

Problems with ground erosion at the campsite did not show statistically significant differences between floaters on the different river segments. The Colorado Daily had the highest mean of 1.73 and the Green Brown's had the lowest mean of 1.42.

Tree damage at the campsites by previous visitors was not a problem on any of the river segments and mean scores did not vary significantly between river segments. Mean scores ranged from a low of 1.21 on the Green Brown's to a high of 1.53 on the Green Daily (Table IV-B.16).

Problems with human waste at the campsites showed statistically significant differences between river segments ( $F = 2.876$ , d.f. = 9,  $p = 0.003$ ). The Colorado Daily had the highest mean (1.62),



followed by San Juan Both at 1.49. At 1.08, the San Juan Upper had the lowest mean.

Mean scores for problems with cattle droppings at campsites varied significantly between river segments ( $F = 4.089$ , d.f. = 9,  $p = < 0.001$ ). The White River and San Juan Upper had the highest mean scores (2.19, and 2.11 respectively). The Green Brown's had the lowest mean of 1.00 ( $F = 4.089$ , d.f. = 9,  $P = < 0.001$ ) (Table IV-B.16).

### ***Most Important Problems that River Managers Should Address***

Question 34 asked respondents to refer back to the list of problems from question 32, then "go back and circle the three or four most important problems you feel that river managers need to address." Results from this question were then tabulated to determine the four most important management problems for each river segment (Tables IV-B.17 through 19).

On the San Juan Upper segment, the most important management problem was the destruction or defacing of historic resources (six responses) (Table IV-B.17). Graffiti or other vandalism, lack of information about the river at launches or take-outs, lack of water at launches or take-outs, and vegetation and soil trampling at launches or take-outs were all the second most important management problems (five responses each).

On the San Juan Lower segment, difficulty finding unoccupied campsites was the primary problem (eleven responses). Not enough campsites along the river was the second most common problem (ten responses). Cattle droppings at the campsites received six responses and four problems tied for fourth place with five responses each: destruction of historical resources, litter along the river, low flying aircraft, and lack of water at launches or take-outs (Table IV-B.17).

For those people who floated both the San Juan Upper and Lower segments, litter along the

river was considered the primary problem (seven responses). Receiving five responses, evidence of cattle was the second most common problem. Finally, graffiti/vandalism and lack of water at the launches and take-outs both tied for the third most common problems (four responses each).

Problems with evidence of cattle received four responses and was the primary problem on the White River. For second place, there was a four-way tie: large groups of boaters, too many people at the take-out, lack of toilets at launches or take-outs, and cattle droppings in the campgrounds all received three responses apiece (Table IV-B.19).

Too many boats on the river and too many people at the launch site were the two most common problems on the Green Brown's (six responses each). The second most common problem there was a three-way tie: too many people on the river, lack of toilets on the river, and rude/inconsiderate boaters all received five responses (Table IV-B.18).

Mosquitoes and insects received the most complaints on the Green Desolation (twenty-one responses). Vegetation and soil trampling at launches and take-outs (seventeen responses) was the second most common problem. Difficulty finding unoccupied campsites was the third largest problem (sixteen responses), and too many people at the take-out was the fourth biggest problem (fifteen responses) (Table IV-B.18).

Mosquitoes and insects were also the most common problems on the Green Labyrinth (fifteen responses). Not enough campsites along the river was the second largest problem (twelve responses). Difficulty finding unoccupied campsites was the third biggest problem (seven responses). There was a four-way tie between problems for the fourth place: evidence of cattle, lack of information about the river at launches and take-outs, vegetation and soil trampling at launches and take-outs, and litter at the

campsites (five responses each) (Table IV-B.18).

Lack of water at launches and take-outs was indicated most often on the Green Daily (ten responses) (Table IV-B.18). At six responses, mosquitoes and insects were the next largest problem. Destruction of historical resources, evidence of cattle, and litter at launches and take-outs tied for third place (five responses each).

As indicated on table IV-B.19, lack of trash receptacles was the largest problem on the Colorado Daily (twenty-six responses). The second biggest problem was lack of toilets at launches and take-outs (twenty-three total responses). At twenty responses, lack of information about the river was the third largest complaint, and lack of water at launches and take-outs was the fourth biggest problem (fifteen responses).

Too many people at the launch site was the primary problem on the Colorado Westwater (twenty-four responses). Soil erosion and trampling was the second most common problem at twenty-two responses. Vegetation and soil trampling at launches and take-outs was the third biggest problem (nineteen responses), and human caused vegetation loss along the river was the fourth largest problem (seventeen responses) (Table IV-B.19).

**Table IV-B.1: Priority river managers should place on *providing more information*.**

	<i>San Juan River</i>			<i>White River</i>	<i>Green River</i>				<i>Colorado River</i>	
	Upper	Lower	Both		Brown's	Desolation	Labyrinth	Daily	Daily	Westwater
Safety information	3.89	3.64	3.90	3.39	3.69	4.01	3.35	3.85	4.22	3.75
River trip information	3.97	3.68	4.05	3.48	3.83	3.88	3.77	4.07	4.26	3.89
River history information*	4.97	4.24	4.37	4.09	3.64	4.29	4.42	3.79	4.47	4.17
Information on reducing impacts***	5.78	5.07	5.51	4.48	4.29	5.24	4.96	4.10	4.94	5.19
Boating etiquette information	4.43	4.64	5.00	4.70	4.44	4.40	3.92	4.17	4.45	4.60

<sup>1</sup> Mean score based on a seven point scale where 1 = lowest priority, and 7 = highest priority.

\* Indicates F test significance at  $p < 0.05$

\*\* Indicates F test significance at  $p < 0.01$

\*\*\* Indicates F test significance at  $p < 0.001$

**Table IV-B.2: Priority river managers should place on *environmental/cultural resources protection*.**

	<i>San Juan River</i>			<i>White River</i>	<i>Green River</i>				<i>Colorado River</i>	
	Upper	Lower	Both		Brown's	Desolation	Labyrinth	Daily	Daily	Westwater
Protect shore vegetation	5.24	4.81	4.72	4.61	4.45	5.02	4.66	4.43	4.91	4.85
Protect shore soils	5.18	4.56	4.71	4.57	4.31	4.97	4.57	4.24	4.85	4.70
Protect wildlife*	6.03	5.47	5.76	5.57	4.98	5.79	5.48	4.95	5.53	5.57
Protect historical artifacts***	6.34	5.97	5.80	5.61	4.67	5.89	5.48	5.31	5.48	5.51
Control non-native vegetation	5.16	4.72	4.97	4.09	4.29	5.17	4.70	4.62	4.56	4.81

<sup>1</sup> Mean score based on a seven point scale where 1 = lowest priority, and 7 = highest priority.

\* Indicates F test significance at  $p < 0.05$

\*\* Indicates F test significance at  $p < 0.01$

\*\*\* Indicates F test significance at  $p < 0.001$

**Table IV-B.3: Priority river managers should place on improving/providing facilities/services.**

	<i>San Juan River</i>			<i>White River</i>	<i>Green River</i>				<i>Colorado River</i>	
	Upper	Lower	Both		Brown's	Desolation	Labyrinth	Daily	Daily	Westwater
Provide toilets*	4.41	4.54	5.05	3.68	4.69	5.04	4.70	4.69	5.13	5.08
Provide trash receptacles***	4.70	4.35	4.08	3.68	4.62	4.89	4.42	4.88	5.23	4.33
Increase parking***	2.41	2.43	2.55	2.91	2.73	2.68	2.44	2.88	3.36	2.98
Provide picnic areas***	2.41	2.16	1.68	1.96	3.20	1.74	1.96	2.74	3.29	1.85
Provide cleaner toilets***	3.37	2.87	3.13	2.74	3.21	3.36	3.21	3.51	4.07	3.22
Better campsite reservation system***	3.00	4.77	3.48	3.17	2.98	3.48	3.13	2.95	3.19	3.65
Provide disability access facilities**	3.49	3.09	3.02	2.87	2.79	3.05	3.02	2.78	3.75	3.04
More campsites	2.97	3.81	3.22	3.57	2.95	3.13	3.76	3.46	3.19	3.65
More river rangers	3.19	2.93	2.80	3.13	2.74	3.14	3.49	2.76	3.24	2.91

' Mean score based on a seven point scale where 1 = lowest priority, and 7 = highest priority.

\* Indicates F test significance at  $p < 0.05$

\*\* Indicates F test significance at  $p < 0.01$

\*\*\* Indicates F test significance at  $p < 0.001$

**Table IV-B.4: Priority river managers should place on addressing crowding issues or concerns.**

	<i>San Juan River</i>			<i>Green River</i>				<i>Colorado River</i>	
	Upper	Lower	Both	White River	Brown's	Desolation	Labyrinth	Daily	Westwater
Group spacing***	3.34	3.05	2.41	2.96	3.10	3.32	2.88	2.10	2.86
Increase day launch***	1.94	2.16	2.54	2.09	1.81	1.78	1.96	2.49	2.79
Reduce day launch**	3.15	3.11	2.89	3.00	3.84	3.41	3.08	2.23	2.72
Reduce crowding***	4.34	4.25	4.13	3.87	4.59	4.58	3.81	2.95	3.52
Provide separate outfitter and private take-outs*	3.61	3.03	2.85	3.30	3.49	3.66	3.40	2.79	3.58

<sup>1</sup> Mean score based on a seven point scale where 1 = lowest priority, and 7 = highest priority.

\* Indicates F test significance at  $p < 0.05$

\*\* Indicates F test significance at  $p < 0.01$

\*\*\* Indicates F test significance at  $p < 0.001$



**Table IV-B.5: The rate of physical impacts on the river caused by the number of people<sup>1</sup>.**

	<i>San Juan River</i>			<i>White River</i>	<i>Green River</i>				<i>Colorado River</i>	
	Upper	Lower	Both		Brown's	Desolation	Labyrinth	Daily	Daily	Westwater
Extremely low	2.7%	13.8%	12.8%	17.4%	6.8%	11.5%	21.6%	11.9%	13.6%	18.4%
Moderately low	27.0%	19.0%	33.3%	34.8%	6.8%	29.2%	31.4%	28.6%	28.6%	21.8%
Currently acceptable	56.8%	53.4%	43.6%	34.8%	54.5%	46.9%	37.3%	47.6%	43.5%	45.6%
Moderately high	8.1%	12.1%	7.7%	4.3%	27.3%	12.4%	7.8%	11.9%	13.6%	13.1%
Extremely high	5.4%	1.7%	2.6%	8.7%	4.5%	0.0%	2.0%	0.0%	0.6%	1.0%
Mean Scores <sup>2</sup>	2.86	2.69	2.54	2.52	3.16	2.60	2.37	2.60	2.59	2.56

<sup>1</sup> F test significance at  $p = 0.006$

<sup>2</sup>Mean score based upon an acceptability scale where 1 = extremely low, 2 = moderately low, 3 = currently acceptable, 4 = moderately high, and 5 = extremely high.

Table IV-B.6: Knowledge and support of river regulations.<sup>1,2</sup>

Regulation	San Juan River			White River	Green River				Colorado River	
	Upper	Lower	Both		Brown's	Desolation	Labyrinth	Daily	Daily	Westwater
Limits on trips per day**	71.1% (96.7%)	91.1% (96.2%)	85.4% (100%)	8.7% (75.0%)	27.9% (86.4%)	82.6% (99.1%)	17.3% (91.3%)	9.1% (61.1%)	21.7% (82.0%)	85.6% (90.5%)
Limit number of people per group**	55.3% (96.2%)	67.2% (97.8%)	80.5% (97.0%)	13.0% (100%)	11.6% (68.8%)	70.4% (95.7%)	13.7% (87.5%)	25.0% (72.8%)	26.1% (79.7%)	82.2% (95.0%)
Limit boats per group	35.1% (85.7%)	29.8% (83.7%)	31.7% (72.0%)	13.0% (100%)	16.3% (81.3%)	28.1% (70.8%)	6.0% (81.8%)	15.9% (72.2%)	16.3% (78.4%)	24.5% (69.7%)
Required to use firepans**	56.8% (96.0%)	91.4% (96.2%)	80.5% (97.2%)	36.4% (92.3%)	25.0% (86.7%)	86.0% (96.2%)	76.5% (95.5%)	29.5% (93.8%)	18.5% (93.0%)	77.1% (99.4%)
Prohibits pets	39.5% (75.0%)	48.3% (81.4%)	67.5% (74.2%)	13.0% (66.6%)	21.4% (68.2%)	27.8% (81.0%)	17.6% (69.2%)	15.9% (80.9%)	21.2% (78.6%)	25.9% (77.3%)
Required to carry out trash	84.2% (100%)	96.5% (98.2%)	100% (100%)	81.0% (100%)	79.1% (100%)	97.4% (100%)	98.1% (98.1%)	77.3% (97.4%)	68.2% (99.2%)	96.5% (99.5%)
Required to carry out human waste**	76.3% (91.1%)	91.4% (96.4%)	97.6% (97.5%)	45.5% (100%)	46.3% (88.5%)	95.6% (99.1%)	88.5% (93.8%)	41.9% (81.5%)	35.5% (88.1%)	92.5% (96.4%)
Prohibits beach fires*	36.8% (78.3%)	50.9% (76.9%)	61.0% (96.9%)	13.6% (85.7%)	47.6% (88.9%)	50.9% (81.0%)	30.8% (85.2%)	44.2% (72.7%)	23.2% (68.9%)	55.3% (84.2%)
Camping only at designated sites**	41.7% (86.9%)	51.8% (76.8%)	42.5% (92.3%)	13.6% (71.4%)	79.1% (91.9%)	38.3% (76.5%)	18.0% (76.9%)	46.5% (95.6%)	39.7% (86.8%)	76.8% (89.5%)
Group assigned to campsite***	20.6% (80.0%)	37.5% (79.1%)	20.0% (100%)	4.3% (50.0%)	45.2% (91.3%)	2.7% (50.0%)	6.0% (36.4%)	13.3% (87.5%)	11.0% (82.5%)	60.9% (91.5%)

<sup>1</sup> Top percentages indicate the percent of respondents that thought the regulation was in place on the river segment they floated.

<sup>2</sup> Bottom percentages indicate the percent of respondents that supported the regulation on the river segment they floated.

\* Indicates F test significance at  $p < 0.05$

\*\* Indicates F test significance at  $p < 0.01$

\*\*\* Indicates F test significance at  $p < 0.001$

**Table IV-B.7: Feelings about the number of people seen on the river.**

	<i>San Juan River</i>			<i>White River</i>	<i>Green River</i>				<i>Colorado River</i>	
	Upper	Lower	Both		Brown's	Desolation	Labyrinth	Daily	Daily	Westwater
Far too many	0.0%	1.7%	4.9%	8.7%	0.0%	2.6%	5.7%	4.4%	2.0%	1.0%
Too many	11.1%	10.3%	9.8%	21.7%	40.0%	19.3%	9.4%	11.1%	9.2%	9.9%
About the right number	86.1%	82.8%	82.9%	65.2%	60.0%	76.3%	79.2%	82.2%	86.3%	83.3%
Too few	2.8%	3.4%	2.4%	4.3%	0.0%	1.8%	5.7%	2.2%	2.0%	5.4%
Far too few	0.0%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.5%
<b>Of those that thought there were "too many," how they felt about placing restrictions on the number of users.</b>										
Number of respondents <sup>1</sup>	4	7	6	7	18	25	8	7	17	22
Unsure	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Definitely no	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	28.6%	33.3%	0.0%	0.0%
Probably no	0.0%	14.3%	16.7%	14.3%	22.2%	20.8%	14.3%	0.0%	23.5%	17.6%
Probably yes	100.0%	71.4%	33.3%	71.4%	66.7%	58.3%	42.9%	66.7%	76.5%	52.9%
Definitely yes	0.0%	14.3%	50.0%	14.3%	11.1%	20.8%	14.3%	0.0%	5.6%	29.4%

<sup>1</sup> Number of respondents who indicated far too many or too many people seen on the river.

**Table IV-B.8: Acceptable number of people and parties.**

	San Juan River			White River	Green River				Colorado River		
	Upper	Lower	Both		Brown's	Desolation	Labyrinth	Daily	Daily	Westwater	
People											
Median	26	52.5	55	29	55	101	51	53	101.5	153	
Average acceptable #	23.6	30.3	42.2	19.6	70.0	29.9	21.7	44.1	50.0	40.0	
Range	2-50	5-100	10-100	8-50	10-100	2-200	2-100	6-100	3-200	6-300	
Parties											
Median	5.5	5.5	5.5	4	38.5	4.5	3	7.5	51	25.5	
Average acceptable #	3.5	3.4	3.3	3.1	17.8	2.7	2.8	6.2	11.5	4.0	
Range	1-10	1-10	1-10	1-7	2-75	1-8	1-5	2-13	0-102	1-50	

**Table IV-B.9: How managers should focus their efforts with respect to providing visitor services or land and river protection.**

	<i>San Juan River</i>			<i>White River</i>	<i>Green River</i>				<i>Colorado River</i>	
	Upper	Lower	Both		Brown's	Desolation	Labyrinth	Daily	Daily	Westwater
Much more focus on visitor services	0.0%	0.0%	2.4%	0.0%	0.0%	0.0%	0.0%	2.3%	1.9%	2.0%
More focus on visitor services	0.0%	6.9%	0.0%	4.3%	6.7%	1.8%	8.2%	9.1%	5.1%	2.5%
Even mix of protection and providing visitor services	43.2%	36.2%	53.7%	56.5%	62.2%	35.1%	36.7%	56.8%	58.9%	48.5%
More focus on protection of land and river	37.8%	41.4%	26.8%	30.4%	31.1%	50.9%	40.8%	18.2%	29.1%	33.8%
Much more focus on protection of land and river	18.9%	15.5%	17.1%	8.7%	0.0%	12.3%	14.3%	13.6%	5.1%	13.2%



**Table IV.-B.10: To what extent are human-caused environmental/cultural resources impacts a problem on the river.**

	<i>San Juan River</i>			<i>White River</i>	<i>Green River</i>				<i>Colorado River</i>	
	Upper	Lower	Both		Brown's	Desolation	Labyrinth	Daily	Daily	Westwater
Vegetation loss due to humans*	2.00	1.60	1.86	1.82	1.56	1.76	1.53	1.42	1.69	1.60
Litter along river***	1.53	1.79	2.27	1.83	1.62	1.53	1.61	1.61	1.63	1.48
Destruction of historical resources***	2.13	1.65	2.08	1.00	1.13	1.45	1.58	1.55	1.29	1.40
Soil erosion on shore**	2.17	1.70	2.00	1.71	1.50	1.77	1.77	1.50	1.66	1.71
Vandalism***	1.89	1.46	1.92	1.05	1.11	1.26	1.61	1.49	1.22	1.22
Water pollution*	1.19	1.33	1.41	1.20	1.20	1.30	1.59	1.28	1.24	1.24

<sup>1</sup>Mean score based on a four point scale where 1 = not a problem, 2 = a small problem, 3 = a moderate problem, and 4 = a big problem.

\* Indicates F test significance at  $p < 0.05$

\*\* Indicates F test significance at  $p < 0.01$

\*\*\* Indicates F test significance at  $p < 0.001$

**Table IV-B.11: To what extent are crowding problems/user conflicts a problem on the river.**

	San Juan River			Green River				Colorado River	
	Upper	Lower	Both	White River	Brown's	Desolation	Labyrinth	Daily	Westwater
Too many motorized watercrafts	1.30	1.09	1.17	1.00	1.12	1.25	1.36	1.14	1.27
Conflicts between rafters and motorboaters	1.14	1.07	1.20	1.00	1.05	1.09	1.19	1.17	1.21
Jet skis*	1.00	1.06	1.05	1.00	1.00	1.04	1.00	1.19	1.22
Conflicts between boater groups**	1.08	1.35	1.50	1.35	1.47	1.26	1.17	1.02	1.10
Rude, inconsiderate boaters**	1.03	1.29	1.40	1.52	1.43	1.32	1.22	1.16	1.20
Too many boaters on river*	1.29	1.29	1.44	1.39	1.73	1.45	1.31	1.20	1.37
Too many people	1.59	1.61	1.75	1.52	1.80	1.63	1.47	1.47	1.52
Amount of time in sight/sound of others	1.35	1.45	1.56	1.43	1.73	1.54	1.49	1.34	1.42
Inexperienced boaters***	1.23	1.19	1.46	1.61	1.80	1.29	1.31	1.35	1.29
Large groups*	1.49	1.54	1.46	1.96	1.78	1.59	1.47	1.37	1.39
Too many river runners*	1.19	1.35	1.49	1.39	1.71	1.43	1.31	1.21	1.38
Time delay at rapids	1.06	1.09	1.12	1.09	1.09	1.11	1.00	1.12	1.18
									1.16

<sup>1</sup>Mean score based on a four point scale where 1 = not a problem, 2 = a small problem, 3 = a moderate problem, and 4 = a big problem.

\* Indicates F test significance at  $p < 0.05$

\*\* Indicates F test significance at  $p < 0.01$

\*\*\* Indicates F test significance at  $p < 0.001$



**Table IV-B.12: To what extent are biophysical conditions a problem on the river.**

	<i>San Juan River</i>			<i>White River</i>	<i>Green River</i>				<i>Colorado River</i>	
	Upper	Lower	Both		Brown's	Desolation	Labyrinth	Daily	Daily	Westwater
Mosquitos/insects***	1.49	1.50	1.41	1.48	1.35	3.29	3.28	1.77	1.34	1.36
Not enough rapids***	1.94	1.42	1.49	1.68	1.36	1.48	1.53	2.30	2.21	1.50
Too remote/secluded	1.03	1.05	1.00	1.00	1.04	1.03	1.04	1.07	1.06	1.06
Too many dangerous rapids	1.03	1.00	1.00	1.00	1.00	1.03	1.00	1.02	1.01	1.03
Poor fishing***	1.00	1.02	1.06	1.00	1.24	1.01	1.17	1.13	1.06	1.03
Too dangerous	1.00	1.00	1.00	1.00	1.04	1.04	1.02	1.00	1.02	1.05
Boating safety*	1.11	1.02	1.25	1.27	1.17	1.08	1.18	1.14	1.18	1.25

'Mean score based on a four point scale where 1 = not a problem, 2 = a small problem, 3 = a moderate problem, and 4 = a big problem.

\* Indicates F test significance at  $p < 0.05$

\*\* Indicates F test significance at  $p < 0.01$

\*\*\* Indicates F test significance at  $p < 0.001$

**Table IV-B.13: To what extent are detractors a problem on the river.**

	<i>San Juan River</i>			<i>White River</i>	<i>Green River</i>				<i>Colorado River</i>	
	Upper	Lower	Both		Brown's	Desolation	Labyrinth	Daily	Daily	Westwater
Evidence of cattle***	2.30	1.70	2.00	2.30	1.14	1.79	1.70	1.98	1.37	1.57
Low flying aircraft***	1.16	1.75	1.48	1.00	1.00	1.37	1.10	1.10	1.05	1.15
Noise	1.21	1.30	1.41	1.26	1.31	1.25	1.30	1.16	1.23	1.20

Mean score based on a four point scale where 1 = not a problem, 2 = a small problem, 3 = a moderate problem, and 4 = a big problem.

\* Indicates F test significance at  $p < 0.05$

\*\* Indicates F test significance at  $p < 0.01$

\*\*\* Indicates F test significance at  $p < 0.001$

**Table IV-B.14: To what extent are services/facilities a problem on the river.**

	<i>San Juan River</i>			<i>White River</i>	<i>Green River</i>				<i>Colorado River</i>	
	Upper	Lower	Both		Brown's	Desolation	Labyrinth	Daily	Daily	Westwater
Too many campfire rings*	1.12	1.22	1.18	1.61	1.20	1.33	1.31	1.33	1.27	1.21
Too few visitor services**	1.29	1.21	1.32	1.30	1.22	1.21	1.29	1.36	1.41	1.14
Lack of toilets***	1.41	1.28	1.29	1.48	1.40	1.30	1.42	1.48	1.67	1.23
Not enough campsites***	1.48	1.84	1.63	1.43	1.13	1.53	2.02	1.37	1.17	1.28

<sup>1</sup>Mean score based on a four point scale where 1 = not a problem, 2 = a small problem, 3 = a moderate problem, and 4 = a big problem.

\* Indicates F test significance at  $p < 0.05$

\*\* Indicates F test significance at  $p < 0.01$

\*\*\* Indicates F test significance at  $p < 0.001$

**Table IV-B.15: To what extent are each of the following problems at launches or take-outs.**

	San Juan River			Green River				Colorado River	
	Upper	Lower	Both	White River	Brown's	Desolation	Labyrinth	Daily	Westwater
Litter at take-outs	1.54	1.40	1.68	1.52	1.28	1.45	1.29	1.44	1.41
Too many people at launch***	1.47	1.28	1.48	1.50	1.74	1.74	1.27	1.41	1.83
Too many people at take-outs	1.50	1.39	1.66	1.78	1.33	1.78	1.67	1.66	1.60
Lack of information about rivers***	1.50	1.42	1.27	1.82	1.28	1.35	1.58	1.45	1.32
Lack of trash receptacles***	1.55	1.53	1.75	1.55	1.23	1.32	1.53	1.48	1.37
Not enough parking**	1.11	1.17	1.15	1.43	1.28	1.19	1.10	1.26	1.13
Lack of toilets***	1.35	1.17	1.48	1.65	1.30	1.15	1.49	1.44	1.20
Lack of shelter/shade	1.68	1.47	1.55	1.52	1.38	1.52	1.41	1.48	1.29
Lack of water***	1.80	1.42	1.51	1.52	1.28	1.68	1.51	1.83	1.37
Vegetation/soil trampling	1.75	1.66	1.72	1.91	1.47	1.86	1.61	1.61	1.62

<sup>1</sup>Mean score based on a four point scale where 1 = not a problem, 2 = a small problem, 3 = a moderate problem, and 4 = a big problem.

\* Indicates F test significance at  $p < 0.05$

\*\* Indicates F test significance at  $p < 0.01$

\*\*\* Indicates F test significance at  $p < 0.001$

**Table IV-B.16: To what extent are each of the following problems at campsites along the river.**

	<i>San Juan River</i>			<i>Green River</i>				<i>Colorado River</i>	
	Upper	Lower	Both	<i>White River</i>				Daily	Westwater
Trash in campsites	1.35	1.26	1.41	1.52	1.16	1.34	1.36	1.56	1.27
Campsites are too remote**	1.00	1.05	1.03	1.05	1.00	1.02	1.22	1.19	1.03
Campsites too close to others***	1.08	1.34	1.46	1.00	1.05	1.27	1.28	1.56	1.15
Campsites damaged by visitors	1.27	1.34	1.36	1.62	1.05	1.44	1.37	1.63	1.36
Difficulty finding open campsites***	1.50	1.76	1.82	1.33	1.16	1.70	1.71	1.44	1.20
Too many groups passed campsite	1.23	1.29	1.31	1.19	1.11	1.28	1.32	1.44	1.11
Ground erosion by humans	1.65	1.44	1.63	1.57	1.42	1.66	1.54	1.53	1.53
Human damaged trees at campsite	1.35	1.33	1.42	1.35	1.21	1.45	1.33	1.53	1.33
Human waste at campgrounds**	1.08	1.18	1.49	1.38	1.21	1.15	1.20	1.27	1.20
Cattle droppings at campsites***	2.11	1.60	1.76	2.19	1.00	1.46	1.55	1.80	1.43

<sup>1</sup>Mean score based on a four point scale where 1 = not a problem, 2 = a small problem, 3 = a moderate problem, and 4 = a big problem.

\* Indicates F test significance at  $p < 0.05$

\*\* Indicates F test significance at  $p < 0.01$

\*\*\* Indicates F test significance at  $p < 0.001$

**Table IV-B.17: Most important problems river managers need to address (open-ended responses).**

<i>San Juan River</i>			
Upper	Lower	Both	
1. Destruction of historic resources (6)	1. Hard finding unoccupied campsites (11)	1. Litter along the river (7)	
2. Graffiti or other vandalism (5)	2. Not enough campsites along the river (10)	2. Evidence of cattle (5)	
2. Lack of info. about the river (5)	3. Cattle droppings at campsites (6)	3. Graffiti/vandalism (4)	
2. Lack of water at launches or take-outs (5)	4. Destruction of historic resources (5)	3. Lack of water at launches (4)	
2. Veg. and soil trampling at launches (5)	4. Litter along the river (5)		
	4. Low flying aircraft (5)		
	4. Lack of water at launches or take-outs (5)		

<sup>1</sup> Numbers in parenthesis indicate the number of responses received for each category.

**Table IV-B.18: Most important problems river managers need to address (open-ended responses).**

<i>Green River</i>				
Brown's	Desolation	Labyrinth	Daily	
1. Too many boats (6)	1. Mosquitoes/insects (21)	1. Mosquitoes/insects (15)	1. Lack of water (10)	
1. Too many people at launch (6)	2. Veg./soil trampling (17)	2. Not enough campsites (12)	2. Mosquitoes/insects (6)	
2. Too many on the river (5)	3. Hard finding campsites (16)	3. Hard finding campsites (7)	3. Destruc. hist. esources (5)	
2. Lack of toilets (5)	4. Too many at take-out (15)	4. Evidence of cattle (5)	3. Evidence of cattle (5)	
2. Rude/inconsiderate boaters (5)		4. Lack of info. about river (5)	3. Litter at launches (5)	
		4. Veg./soil trampling (5)		
		4. Litter at campsites (5)		

<sup>1</sup> Numbers in parenthesis indicate the number of responses received for each category.



**Table IV-B.19: Most important problems river managers need to address (open-ended responses).**

<i>White River</i>	<i>Colorado River</i>	
	Daily	Westwater
1. Evidence of Cattle (4)	1. Lack of trash receptacles (26)	1. Too many people at the launch site (24)
2. Large groups of boaters (3)	2. Lack of toilets (23)	2. Soil erosion and trampling (22)
2. Too many at take-out (3)	3. Lack of information about the river (20)	3. Vegetation and soil trampling (19)
2. Lack of toilets (3)	4. Lack of water at launches/take-outs (15)	4. Human-caused vegetation loss (17)
2. Cattle droppings in camps (3)		

<sup>1</sup> Numbers in parenthesis indicate the number of responses received for each category.

## **APPENDIX IV-1**

### **Mail Survey Instrument**

# UTAH RIVER TRIP SURVEY

*Thank you for taking time to complete this survey!*

## PART I: RIVER RUNNING EXPERIENCE

By "river running," we mean taking a trip of any length on a river in a canoe, raft, kayak, or dory (drift boat) or other non-motorized or small-motor watercraft during 1999. This trip could be in a personal craft, a friend's craft, or as part of a commercial guided river trip. A *commercial trip* means a private company or agency owns the watercraft and there is a professional guide leading the trip.

**NOTE: If you take all your trips on Utah rivers, your responses in both columns should be the same.**

1. In what *year* did you first run a river?
2. During the *past 12 months*, how many times did you run rivers?
3. About how many river trips have you been on in your life?  
**NOTE: If you have only been on one or two river trips in your life, check here ☐ and go to Question 11.**
4. How many times do you run rivers in a *typical year*?
5. How many *river miles* is an average float for you?
6. How many *days* is a usual float for you?
7. How many *watercraft* are in your average group?
8. How many *people* are in your average group?
9. Do you usually go as part of a (1) private group or (2) commercial group? [Enter a 1 or 2 in boxes.]
10. What is the *usual makeup* of your group? [(1) = Individual, (2) = Family, (3) = Friends, (4) = Family *and* friends, (5) = Group unacquainted with prior to trip, (6) = Club or organization.]

In General	On Utah Rivers

11. How would you rate your skill level as a river runner? (check *one*)

☐ Beginner      ☐ Intermediate      ☐ Advanced      ☐ Expert

12. In general, how often do you obtain information about river running from each of the sources listed below? (Please circle a response *for each*)

<u>INFORMATION SOURCE</u>	<u>Never</u>	<u>Rarely</u>	<u>Some- times</u>	<u>Often</u>	<u>Very Often</u>
A. River running groups or clubs	1	2	3	4	5
B. Other outdoor groups or clubs	1	2	3	4	5
C. Friends/family	1	2	3	4	5
D. Radio/television	1	2	3	4	5
E. Outdoor equipment stores	1	2	3	4	5
F. Magazine or Newspaper	1	2	3	4	5
G. Government agency offices/personnel	1	2	3	4	5
H. Guidebook	1	2	3	4	5
I. Advertisement	1	2	3	4	5
J. Tour guide	1	2	3	4	5
K. Websites (please specify)	1	2	3	4	5
<hr/> L. Other (please specify)	1	2	3	4	5
<hr/>					

13. Are you a member of any river running groups or clubs?

☐ NO      ☐ YES -----> If yes, which ones? \_\_\_\_\_

\_\_\_\_\_

14. Are you a member of any environmental or conservation organizations such as Sierra Club, Nature Conservancy, or Ducks Unlimited?

☐ NO      ☐ YES -----> If yes, which ones? \_\_\_\_\_

\_\_\_\_\_

## PART II: YOUR RIVER RUNNING TRIP EXPERIENCE

**NOTE:** All remaining questions refer to the specific river trip indicated on the cover letter. Please verify the segment you floated on that day below. If you have taken other Utah river running trips, please consider only this one trip while answering these questions

Date: \_\_\_\_\_

River: ☐ Green ☐ Colorado ☐ Dolores ☐ White ☐ San Juan

River segment (see map on inside of front cover):

Green

☐ Browns Park

☐ Desolation

☐ Daily

☐ Labyrinth

Colorado

☐ Westwater

☐ Daily

Dolores

☐ Gateway

White

☐ Rangely to Bonanza

☐ Bonanza to Enron

San Juan

☐ Upper

☐ Lower

☐ Both

Type of trip: ☐ commercial or ☐ private float trip?

15. What type of watercraft did you use?

☐ Canoe

☐ Kayak

☐ Raft

☐ Dory (drift boat) ☐ Sail boat/board

☐ Jet ski

☐ Small-motor craft

☐ Other \_\_\_\_\_

16. How many people, including yourself, traveled together for this trip?

Number of adults (18 and over) \_\_\_\_\_ Number of children \_\_\_\_\_

17. How many times have you floated this segment of river before? \_\_\_\_\_

18. What type of group or groups were part of your river party? (check all that apply)

\_\_\_\_ Family

\_\_\_\_ Friends/acquaintances

\_\_\_\_ Group unacquainted prior to trip

\_\_\_\_ Club or organization (Please give type) \_\_\_\_\_

19. When you made the decision to float this segment, did you consider some other river or segment you might float instead?

☐ No

☐ Yes →

If yes, which river or segment?

☐ Sorry, don't remember the segment name.

Why did you finally decide on this segment?

20. Below are some statements that many people consider important reasons for taking a river float trip. Please think back to when you decided to take your float trip. Then indicate how important each of the reasons seemed to be at that time (circle 1 number for each reason).

<u>Trip reasons:</u>	<u>Not at all</u> <u>Important</u>	<u>Slightly</u> <u>Important</u>	<u>Somewhat</u> <u>Important</u>	<u>Moderately</u> <u>Important</u>	<u>Very</u> <u>Important</u>	<u>Extremely</u> <u>Important</u>
To do something new and different	1	2	3	4	5	6
Be in a natural area	1	2	3	4	5	6
Run rapids	1	2	3	4	5	6
See spectacular scenery	1	2	3	4	5	6
For the exercise	1	2	3	4	5	6
To feel secluded	1	2	3	4	5	6
It was close to home	1	2	3	4	5	6
Others in my group wanted to do it	1	2	3	4	5	6
See wildlife	1	2	3	4	5	6
Be with family and friends	1	2	3	4	5	6
I thought the river conditions would be good	1	2	3	4	5	6
To learn about nature	1	2	3	4	5	6
To get away from it all	1	2	3	4	5	6
To run the river in high water	1	2	3	4	5	6
To run a familiar river segment	1	2	3	4	5	6
To meet other people	1	2	3	4	5	6
Improve my boating skills	1	2	3	4	5	6
Use outdoor skills	1	2	3	4	5	6
Visit historic and archeological sites	1	2	3	4	5	6
To enjoy quiet and tranquility	1	2	3	4	5	6
To catch a lot of fish	1	2	3	4	5	6
Catch large fish	1	2	3	4	5	6
To be able to hike up side canyons	1	2	3	4	5	6
To see unfamiliar landscapes	1	2	3	4	5	6
Have some exciting unplanned experiences	1	2	3	4	5	6
To do an impressive sort of thing	1	2	3	4	5	6
For a challenge	1	2	3	4	5	6
To have a lot of thrills	1	2	3	4	5	6
To get away from the crowds	1	2	3	4	5	6
To see new and different areas	1	2	3	4	5	6
To feel in control of the boat	1	2	3	4	5	6
To show others you can do it	1	2	3	4	5	6
It was an organized trip or group outing	1	2	3	4	5	6
To experience remote areas	1	2	3	4	5	6
To think about my personal values	1	2	3	4	5	6
Learn about human history and culture	1	2	3	4	5	6
Practice my fishing skills	1	2	3	4	5	6
For a sense of personal accomplishment	1	2	3	4	5	6
To get a good workout	1	2	3	4	5	6
Be with others who have similar interests	1	2	3	4	5	6
To experience solitude	1	2	3	4	5	6
To do something new and different	1	2	3	4	5	6
To tell others about it at home	1	2	3	4	5	6

21. In general, how satisfied were you with this river trip? (Please circle one number)

1. Very Satisfied
2. Satisfied
3. Neither satisfied or dissatisfied
4. Dissatisfied
5. Very dissatisfied

22. What did you enjoy the most?

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---

23. What did you enjoy the least?

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24. To what extent do you feel the river trip actually provided each of the following experiences?

<u>Experiences:</u>	<u>Not part of the trip</u>				<u>Major part of the trip</u>
It was exciting	1	2	3	4	5
I got some exercise	1	2	3	4	5
It was something to be proud of	1	2	3	4	5
I felt close to nature	1	2	3	4	5
I experienced solitude	1	2	3	4	5
It was relaxing	1	2	3	4	5
It was a wilderness experience	1	2	3	4	5
I felt close to my friends/family	1	2	3	4	5
It was a challenge	1	2	3	4	5
I caught fish	1	2	3	4	5
I thought about my personal values	1	2	3	4	5
I met friendly people	1	2	3	4	5
I learned about history and culture	1	2	3	4	5
I practiced my outdoor skills	1	2	3	4	5
It was an impressive thing to do	1	2	3	4	5
I learned about the natural world	1	2	3	4	5
It was a unique experience	1	2	3	4	5



### PART III: RIVER MANAGEMENT PREFERENCES

**NOTE:** Remember, all remaining questions refer to the specific river trip in which you were contacted by a Utah State University research technician at the river takeout.

25. Briefly read the following list. Then go back and indicate the priority you think river managers should put on each item in the future.

	Lowest Priority					Highest Priority	
Provide toilets at river put-ins and take-outs	1	2	3	4	5	6	7
Increase parking spaces at put-ins and take-outs	1	2	3	4	5	6	7
Provide picnic areas along river	1	2	3	4	5	6	7
Provide trash receptacles at take-outs	1	2	3	4	5	6	7
Achieve better spacing among groups on the river by assigning time of day when each group may begin its trip	1	2	3	4	5	6	7
Provide cleaner toilets	1	2	3	4	5	6	7
Provide river running safety information at put-ins	1	2	3	4	5	6	7
Provide river trip information signs at put-ins	1	2	3	4	5	6	7
Increase number of daily launch permits	1	2	3	4	5	6	7
Provide information about rivers' natural and cultural history	1	2	3	4	5	6	7
Reduce number of daily launch permits	1	2	3	4	5	6	7
Reduce crowding along heavy use areas	1	2	3	4	5	6	7
Prevent impacts to natural vegetation on shore	1	2	3	4	5	6	7
Prevent impacts to soils on shore	1	2	3	4	5	6	7
Provide separate outfitter and private take-outs to reduce congestion	1	2	3	4	5	6	7
Protect wildlife	1	2	3	4	5	6	7
Protect historical/cultural resources and artifacts	1	2	3	4	5	6	7
Provide additional campsites along rivers	1	2	3	4	5	6	7
Provide more river rangers to patrol rivers	1	2	3	4	5	6	7
Provide information on how floaters can reduce plant and soil impacts	1	2	3	4	5	6	7
Control non-native vegetation on shore	1	2	3	4	5	6	7
Provide boating etiquette information	1	2	3	4	5	6	7
Better campsite reservation system	1	2	3	4	5	6	7
Provide more disabled access facilities	1	2	3	4	5	6	7

26. In general, I would rate the physical impacts caused by the number of people who float this river as ...  
(Check *one*)

- ☐ Extremely low
- ☐ Moderately low
- ☐ Currently acceptable
- ☐ Moderately high
- ☐ Extremely high

27. Some Utah river segments have different rules regarding boat use. Some have very few use rules and others have several. For each of the following types of rules, please indicate if you think it is or is not a rule on the river segment that you floated. If it is a rule, please indicate your level of support or opposition to that type of rule for that segment.

	Don't Know	No	Yes (if yes)	Strongly Support	Support	Oppose	Strongly Oppose
Limit on number of trips allowed per day	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> →	1	2	3	4
Limit on number of people per group	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> →	1	2	3	4
Limit on number of boats per group	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> →	1	2	3	4
Require firepans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> →	1	2	3	4
Prohibit pets on the river	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> →	1	2	3	4
Require people to carry out their trash	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> →	1	2	3	4
Require people to carry out human body waste	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> →	1	2	3	4
Prohibit beach fires along the river	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> →	1	2	3	4
Allow camping only at designated sites	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> →	1	2	3	4
Each group is assigned where they may camp	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> →	1	2	3	4
Other _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> →	1	2	3	4

28. Some people like to see other people on the river and some do not. Which of the following best describes your feelings about the total number of people you saw while you were on the river?

- ☐ Far too many ☐ → 

Go to question 28a
- ☐ Too many ☐
- ☐ About the right number ☐
- ☐ Too few ☐ → 

Go to question 29
- ☐ Far too few ☐

28a. If you feel there were "too many" people on the river during your trip, do you think that there should have been a restriction on the number of people that could use the river at the time of your trip?

- ☐ Unsure ☐ → 

Go to question 29
- ☐ Definitely no ☐
- ☐ Probably no ☐
- ☐ Probably yes ☐
- ☐ Definitely yes ☐ → 

If yes, why do you think there should be use restrictions?

\_\_\_\_\_

\_\_\_\_\_

29. What do you feel would be an acceptable number of people and parties to see on the river per day? If it does not make any difference to you, regarding the number of people or parties (groups) you see, place an "X" in the space provided.

\_\_\_\_\_ Acceptable number of people.

\_\_\_\_\_ Acceptable number of parties.

30. If you had not been able to get a permit or guide to float this river segment, do you think you would have gone boating on another segment at the time of your trip, or done something else? (Check *one*)

- ☐ Definitely float another river segment  
☐ Probably float another river segment  
☐ Something else  
☐ Unsure

31. With respect to providing visitor services or land and river protection on the river you floated, how should managers focus their efforts? (Check *one*)

- ☐ Much more focus on visitor services  
☐ More focus on visitor services  
☐ An even mix of protection and providing visitor services  
☐ More focus on protection of the land and river area  
☐ Much more focus on protection of the land and river area

32. To what extent is each of the following a problem on the segment of river you floated?

	<u>Don't Know</u>	<u>Not a Problem</u>	<u>A Small Problem</u>	<u>A Moderate Problem</u>	<u>A Big Problem</u>
<b><u>On the river...</u></b>					
Mosquitos/insects	X	1	2	3	4
Too many campfire rings	X	1	2	3	4
Too many motorized watercraft	X	1	2	3	4
Not enough rapids	X	1	2	3	4
Too remote or secluded	X	1	2	3	4
Human caused vegetation loss	X	1	2	3	4
Litter along river	X	1	2	3	4
Not enough visitor facilities and services	X	1	2	3	4
Conflicts between river runners & motorboaters	X	1	2	3	4
Too many dangerous rapids	X	1	2	3	4
Destruction/defacing of historic resources	X	1	2	3	4
Soil erosion or trampling on shore	X	1	2	3	4
Graffiti or other vandalism	X	1	2	3	4
Too many people	X	1	2	3	4
Evidence of cattle	X	1	2	3	4
Lack of toilets	X	1	2	3	4
Amount of time in sight or sound of other parties	X	1	2	3	4
Inexperienced boaters on the river	X	1	2	3	4
Large groups of boaters	X	1	2	3	4
Time delays at rapids	X	1	2	3	4
Poor fishing	X	1	2	3	4
Too many river runners	X	1	2	3	4
Too dangerous	X	1	2	3	4
Jet ski encounters	X	1	2	3	4
Not enough campsites	X	1	2	3	4
Low flying aircraft	X	1	2	3	4

32. (cont.) To what extent was each of the following a problem on the segment of river you floated?

	<u>Don't Know</u>	<u>Not a Problem</u>	<u>A Small Problem</u>	<u>A Moderate Problem</u>	<u>A Big Problem</u>
<b><u>On the river...</u></b>					
Conflicts between different groups of boaters	X	1	2	3	4
Inexperienced boaters	X	1	2	3	4
Rude, inconsiderate boaters	X	1	2	3	4
Noise	X	1	2	3	4
Boating safety	X	1	2	3	4
Water pollution	X	1	2	3	4
Too many boats on the river	X	1	2	3	4

**At launches or take-outs...**

Litter or trash	X	1	2	3	4
Too many people at the launch site	X	1	2	3	4
Too many people at the takeout	X	1	2	3	4
Lack of information about the river	X	1	2	3	4
Lack of trash receptacles	X	1	2	3	4
Not enough parking	X	1	2	3	4
Lack of toilets	X	1	2	3	4
Lack of shelter/shade	X	1	2	3	4
Lack of water	X	1	2	3	4
Vegetation & soil trampling	X	1	2	3	4

**NOTE: If you did not camp along the river, check here ☐ and go to question 33.**

Litter or trash in campsites	X	1	2	3	4
Campsites are too remote/secluded	X	1	2	3	4
Campsites too close to other parties	X	1	2	3	4
Campsites damaged by previous visitors	X	1	2	3	4
Difficulty finding an unoccupied campsite	X	1	2	3	4
Too many groups passed my campsites	X	1	2	3	4
Human caused erosion or bare ground at campsites	X	1	2	3	4
Human damaged trees at campsites	X	1	2	3	4
Human waste at campsites	X	1	2	3	4
Cattle droppings in campsites	X	1	2	3	4

33. Can you think of any other problems river managers need to address along the river segment you ran?

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34. From the list of problems on question 32, please go back and *circle the three or four most important problems* you feel that river managers need to address.

35. What type of riverside campsite would you prefer to use on the river you floated? (Check *one*)

- ☐ I never plan on camping along Utah rivers
- ☐ Undeveloped sites (no toilets or other facilities)
- ☐ Semi-developed sites with pit toilets and fire rings
- ☐ Developed sites with pit toilets, parking, picnic tables, and fire grills
- ☐ Highly developed sites with flush toilets, showers, running water, and utility hookups

36. If you are a private boater, would you be willing to pay a fee on that river segment?

- ☐ Yes
- ☐ No
- ☐ Not a private boater

37. Please indicate if you would oppose, favor, or feel neutral towards *each* of the following methods to raise additional funds from private, noncommercial boaters for river management on the river segment you floated.

	Strongly Oppose	Oppose	Neutral	Favor	Strongly Favor
A. Daily use fee for river segment permit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. Weekly use fee for river segment permit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. Per trip fee (for multi-day trips)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. Annual use fee for river segment permit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E. Utah state tax on sale on new river running boats and equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F. Weekly permit for <u>all</u> dispersed recreation users in non-fee areas (including hiking, biking, camping, four-wheeling, river running, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
G. Annual permit for <u>all</u> dispersed recreation users in non-fee areas (including hiking, biking, camping, four-wheeling, river running, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
H. Other _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

38. Which would be your preferred method? (Circle *one*)    A    B    C    D    E    F    G    H

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## PART IV: TRIP CHARACTERISTICS

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☆ All of the river segments included in this study are located in eastern Utah (Daggett, Uintah, Carbon, Emery, Grand, and San Juan counties). The following questions are for **VISITORS to eastern Utah only**. If you are a resident of Daggett, Uintah, Carbon, Emery, Grand, or San Juan county, **check here** ☐ and skip to question #44.

Once again, for each of the following questions, refer to the river running trip to Utah when you were contacted by a USU research technician at the takeout.

39. How long did you stay *in eastern Utah* during your trip? \_\_\_\_\_ days \_\_\_\_\_ nights  
Did you stay overnight when not on the river? ☐ Yes ☐ No

If yes, how many nights did you spend in each of the following ...

\_\_\_\_\_ Hotel/Motel \_\_\_\_\_ Government campground \_\_\_\_\_ Private campground  
\_\_\_\_\_ Non-designated campground \_\_\_\_\_ Family/Friend \_\_\_\_\_ Second home

40. Check all of the following activities you participated in during your trip to eastern Utah.

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Camping         | <input type="checkbox"/> Mountain Climbing    | <input type="checkbox"/> Backpacking                 |
| <input type="checkbox"/> Photography     | <input type="checkbox"/> Four-wheeling        | <input type="checkbox"/> Visit Native American Sites |
| <input type="checkbox"/> Motor boating   | <input type="checkbox"/> Hang gliding         | <input type="checkbox"/> Fishing                     |
| <input type="checkbox"/> Downhill Skiing | <input type="checkbox"/> Rock Climbing        | <input type="checkbox"/> Hunting                     |
| <input type="checkbox"/> Ski touring     | <input type="checkbox"/> Driving for Pleasure | <input type="checkbox"/> Tennis                      |
| <input type="checkbox"/> Picnicking      | <input type="checkbox"/> Canoeing/kayaking    | <input type="checkbox"/> Golf                        |
| <input type="checkbox"/> Bird watching   | <input type="checkbox"/> Hiking               | <input type="checkbox"/> Mountain biking             |
| <input type="checkbox"/> Rafting         | <input type="checkbox"/> ATV riding           | <input type="checkbox"/> Dirt biking                 |

41. Was eastern Utah the primary destination for your trip, or was it just one stop on your trip?
- ☐ Primary destination ☐ Just one stop. What was your primary destination?  
\_\_\_\_\_

42. What was the *primary* reason that you visited eastern Utah? (Please just check *one*)
- ☐ Go river running -----> Any specific rivers or areas? \_\_\_\_\_  
☐ For other outdoor activities (mountain biking, hiking, camping, four-wheeling, etc.)  
☐ Visit National Parks  
☐ General touring, sightseeing  
☐ Visit family or friends  
☐ Business  
☐ Other (please specify): \_\_\_\_\_

43. How did you find out about eastern Utah as a destination for river running?
- |  |  |
|--|--|
| <input type="checkbox"/> River running groups or clubs | <input type="checkbox"/> Government agency offices/personnel |
| <input type="checkbox"/> Other outdoor groups or clubs | <input type="checkbox"/> Guidebook                           |
| <input type="checkbox"/> Friends/Family                | <input type="checkbox"/> Advertisement                       |
| <input type="checkbox"/> Radio/Television              | <input type="checkbox"/> Tour guide                          |
| <input type="checkbox"/> Outdoor equipment store       | <input type="checkbox"/> Websites (please specify) _____     |
| <input type="checkbox"/> Magazine or Newspaper         | <input type="checkbox"/> Other (please specify) _____        |



## PART V: BACKGROUND INFORMATION

44. What is your sex? ☐ male ☐ female
45. What is your age? \_\_\_\_\_
46. What is your race or ethnic background?  
☐ Black/African American ☐ American Indian ☐ Asian  
☐ Hispanic ☐ White/Anglo/Caucasian ☐ Other \_\_\_\_\_
47. How many years of school have you completed?  
☐ Less than high school degree ☐ Completed bachelor's degree  
☐ Completed high school ☐ Some post graduate work  
☐ Some college or technical school ☐ Completed a post graduate degree  
☐ Associate or technical college degree ☐ Other (please specify) \_\_\_\_\_
48. Which of the following best describes the area where you currently live?  
☐ A large metropolitan city (over 1,000,000 population) or suburb  
☐ A metropolitan city (250,000 to 1,000,000) or suburb  
☐ A major city (100,000 to 250,000) or suburb  
☐ A medium sized city (25,000 to 100,000) or suburb of a medium sized city  
☐ A small city (5,000 to 25,000) or suburb of a small city  
☐ A town or village (2,500 to 5,000)  
☐ In the country or a very small town (under 2,500)  
☐ Rural farm or ranch
49. Which of the following best describes the area where you have lived most of your life?  
☐ A large metropolitan city (over 1,000,000 population) or suburb  
☐ A metropolitan city (250,000 to 1,000,000) or suburb  
☐ A major city (100,000 to 250,000) or suburb  
☐ A medium sized city (25,000 to 100,000) or suburb of a medium sized city  
☐ A small city (5,000 to 25,000) or suburb of a small city  
☐ A town or village (2,500 to 5,000)  
☐ In the country or a very small town (under 2,500)  
☐ Rural farm or ranch
50. What is your current employment status?  
☐ Working full time ☐ Retired ☐ Never been employed  
☐ Working part time ☐ Student ☐ Other (please specify) \_\_\_\_\_  
☐ Currently unemployed ☐ Homemaker
51. What is your usual occupation/job? (If retired or unemployed, tell us your previous occupation.)  
  
JOB TITLE \_\_\_\_\_  
  
TYPE OF WORK \_\_\_\_\_
52. What was your total household income (including all family members) before taxes for 1998.  
☐ Under \$10,000 ☐ \$40,000 to \$49,999 ☐ \$80,000 to \$89,999  
☐ \$10,000 to \$19,999 ☐ \$50,000 to \$59,999 ☐ \$90,000 to \$99,999  
☐ \$20,000 to \$29,999 ☐ \$60,000 to \$69,999 ☐ \$100,000 to \$109,999  
☐ \$30,000 to \$39,999 ☐ \$70,000 to \$79,999 ☐ \$110,000 or more
53. How many people depend upon this income? \_\_\_\_\_ Adults \_\_\_\_\_ Children (18 or under)

Please feel free to make any additional comments on the inside of the back cover. When you have completed the survey, **please staple or tape the survey closed and mail**. Our return address and postage are printed on the back of the booklet. If you would like to receive a short summary of the study results, check here ☐.

Thank you for your assistance!



## **APPENDIX IV-2**

### **Other Management Problems**

**River Study Mail Survey: Other Management Problems**

***San Juan Upper***

[54] The extreme difficulty of obtaining a permit.

[70] Bathrooms were quite a distance.

[73] More flexibility in getting permits and take-off in case of bad weather.

[74] The proliferation of Russian olives along the San Juan in the last 15 years has been awful, but I'm not sure you can do much about it. Don't allow motorized boats on the river, PERIOD!

[76] No I can't, I enjoyed the river very much.

[86] Was it atypical or were we just lucky that our 2 nights camping were only with our party? Never had to share a site.

[102] It's my understanding that commercial trips have priority at some of the best campsites. I don't see why they should be treated more favorably than private boaters.

[109] Need toilet facilities.

[110] Control grazing and preserve natural vegetation of control erosion and damage to environment and archaeological sites.

***San Juan Lower***

[303] The last night of our journey we were obliged to find another campsite because our planned site had been taken by others. I understand the need for cooperation and flexibility, however, the campsite we ended up in, though beautiful, was on a bend in the river, balled Moonlight Canyon. The approach required passengers to tow the rafts some fifty-eight feet through foul smelling muck that was sometimes thigh deep. The water in this area was stagnant and foul smelling. Once we reached shore and explored the enclosed campsite, we found human waste in several spots. Since the water was stagnant, some of us washed off the mud with our drinking water. With exception of this campsite, the other sites were very nice. I regard this as a minor inconvenience when one considers the good intention and good services of the river crews. I would recommend this particular campsite to be placed off limits unless it could somehow be made more accessible – perhaps with a channel through the shallow water. Even then, it is far

- 1 removed from the river channel and surrounded by still water. Perhaps this fluctuation of  
2 water level throughout the year at (Mexican) Hat ameliorates this problem.  
3 More toilet facilities and water at the takeouts.  
4 Human waste should be buried or facilities provided for pump-out.
- 5 [306] Make sure the guides know the information they are supposed to know. Should use  
6 reputable companies that act in accordance and at a personal level with rangers and make  
7 sure they know the rules of the river. Our guide did!  
8 Make sure the companies that bring tours in are educated in the rules and regulations and  
9 also have some kind of rapport with either river managers or rangers, I'm not sure which  
10 ones. But respect of the valuable rivers are of utmost importance.  
11 More shade at the campsites would have been lovely.  
12 There was a little litter on either side of the river.  
13 Don't let jetskis on the river.
- 14 [308] Boaters need better indoctrination at the put-in.
- 15 [319] Sign-up for camp sites at Slickhorn were very poor. Need a better system.
- 16 [325] A need for a human waste receptacle at the takeout is important. In Idaho, they have  
17 machines and you pay to get rid of your waste. Excellent system.
- 18 [327] Too many people at same time in Lower San Juan, but it's ok. Getting survey people to  
19 not interrupt the takeout process. They got in the way and distracted people.
- 20 [328] River was so high that the campsite reserved for our large group (of 27) was flooded.
- 21 [329] Keep it natural and beautiful.
- 22 [332] Flooding at campsite just before final takeout.
- 23 [338] Stealing pre-registered campsite. Take care of the fragile ecosystems in the side canyon  
24 pools.
- 25 [347] Disposal of human waste after rafting trip is usually a problem – there are no known  
26 facilities for waste disposal in Mexican Hat.
- 27 [349] Would be nice to have trash and sewage drop-off facilities at takeouts.
- 28 [351] River seems fairly well managed. River could probably support more user-days. Litter  
29 somewhat of a problem at launches/takeouts and campsites. Unfortunately some people  
30 are pigs, and more trash cans/info on minimum impact techniques won't change that.  
31 Definitely don't increase river police and don't increase number of rules and regulations

- 1 for river runners.
- 2 [354] Campsite reservations should be done at put-in, with a receipt as proof.
- 3 [361] Use of lotions/shampoo in side canyon pools has deleterious effects.
- 4 [367] Motors on upper segment.
- 5 [369] We had to come off a day early because long term boaters had all available campsites.
- 6 [370] Ranger was taking one of the few campsites on the river.
- 7 [371] The only problem we encountered was trying to use a campsite that had already been  
8 reserved and we didn't realize that portion (lower 1/3) of the river required reservations.
- 9 [382] Give notice that at high water, campsites on extreme lower section are hard to find.
- 10 [387] Coordinate efforts with tribe more to influence responsible management of their lands.
- 11 [395] 1- Severe damage, odor, and pollution from cattle.  
12 2- Significant litter from well upstream.  
13 3- Camping on left bank (Indian reservation) should be allowed.
- 14 [396] The pre-registration for some of the campsites is difficult, since the sites are unmarked,  
15 leading to confusion among those that are not familiar with the area.
- 16 [400] Long questionnaires about river running experiences.
- 17 [405] Slickhorn campsite registration program is not being honored.
- 18 [408] The trash floating down the river.
- 19 [412] 1. Pets should be allowed with well enforced restrictions re: waste and nuisance animals.  
20 2. There are too few rivers left in the U.S. where one can be spontaneous and just go...the  
21 San Juan used to be such a place, and it would be nice to try to keep it as a close to that as  
22 possible while protecting the resource.
- 23 [414] Too many surveys.
- 24 [418] General enforcement of rules.
- 25 [422] Knowledge of the scarcity of campsites past Grand Gulch before signing up for campsites  
26 would have been helpful.

- 1 [423] Take out was very difficult and dangerous. A ramp is needed.
- 2 [426] 1. Deposition of human waste. Disposals at takeout are much needed otherwise it will be  
3 deposited inappropriately (often).  
4 2. Although we had brought plenty of water, it would be good to have drinkable water at  
5 takeout for others.  
6 3. Commercial outfitters seem to get more permits on rivers than the private boaters.  
7 Rivers are national gems and should be available to private parties.
- 8 [428] San Juan seems well managed. We saw practically no one except at the canyon with clear  
9 pools and takeout. Flooded trash along river seemed most obvious problem and  
10 vandalism of historic sites. I would like to see management continue to allow people to  
11 have a wilderness experience – a delicate balance of education, rules, and freedom to just  
12 “be.” (With an emphasis on the education vs. rules).
- 13 [429] Lake Powell!
- 14 [431] Need a human waste disposal at takeout so waste is not disposed of inappropriately.
- 15 [438] No. But to reiterate, I think the biggest problems are allowing boats with motors (very  
16 disruptive). Second, low flying aircraft (military, they’re really low and loud) for the same  
17 reason. Also, banks breaking down due to trampling while landing, putting in,  
18 loading/unloading, but I don’t know what you’d do about it.
- 19 [450] More trash pickup.
- 20 [451] Getting other boaters to understand if you sign up for a campsite that campsite is yours  
21 and you don’t have to share it!
- 22 [452] Trash from upstream (oil cans, tires, etc.) is unsightly.
- 23 [453] Issue fewer commercial permits. Commercial outfitter clients tend to be noisy, stupid,  
24 inconsiderate, and seem to think it’s a carnival ride instead of natural area.
- 25 [454] Get rid of the dam. Bring back Boxcar Rapid. Too many commercial trips.
- 26 [455] Protect and close certain side canyons to help the rehabilitation and recovery of natural  
27 side canyon ecosystems.
- 28 [456] More beaches along river
- 29 [461] Really, it all boils down to experience. People need to be more considerate of other  
30 boaters and educated about river etiquette. Missing your campsite, pulling in to the

1 middle of ours (not asking), camping there, and playing a stereo loud all night is screwed  
2 up!

3 [463] People need solid LNT training. I found tampons under rocks twice (in the camping area).

4 [468] Too many people; bottleneck at Slickhorn; convey ecology, low-impact techniques to  
5 floaters. Commercial groups are too large, not enough private launches compared to  
6 commercial.

7 [471] The other boaters seemed to take good care of the camps. Cow crap was too noticeable.  
8 Need more room at takeout. A sheep study government group took a whole campsite that  
9 we wanted and only had two people.

10 [472] Slickhorn B campsites too difficult to camp. Too small and rocky.

11 [474] Mexican Hat takeout was too crowded. I think providing info for boaters about “treading  
12 lightly” would help educate and create more respect.

### 13 *White River*

14 [702] The livestock impact is huge. Many campsites were not even tolerable.

15 [704] Yes, limit commercial river trips. Limit their size.

16 [737] Fire rings a problem. Either assigned ring location or require firepans.

17 [741] The same canoe trip was suspected of using a ravine near their camp for a toilet.

18 [743] The centennial groups were poorly managed. The boaters were way inexperienced and the  
19 guides did not provide good leadership. I saw human waste, toilet paper, and trash at the  
20 campsites.

21 [745] More information available, more regulations. We witnessed a commercial group of  
22 canoes, out of Colorado I believe, that had no toilet facilities with their group, human  
23 waste and trash were left at all of their campsites. Their boats often got interspersed with  
24 ours and their lack of boating skills caused our group to rush through areas to avoid  
25 collisions.

26 [746] Get the Centennial outfitters off the river, these people are slob boaters.

### ***Brown's Park***

[1013] Not from my observations in May. Probably would have different feelings had we been there in the summer when all the recreational floaters were on the river. We were there to fish.

[1018] Not familiar enough to comment.

[1030] Toilet facilities look bad. A plain brown or green is ok.

[1041] It's a wonderful fishery, at least in May before the recreational rafters. Keep it up!

[1046] Cut the number of launches of commercial boaters.

[1049] Rude guide threatening to puncture our rafts.

[1077] On a section of river, too many people, guides are mostly responsible. Lower section from Little Hole to Brown's Park much better; fewer guides.

[1088] Where is the wildlife?

[1098] Handicap accessibility.

[1130] Charging for campsites is bull.

[1135] Congestion very heavy the first 12 miles below Flaming Gorge.

[1139] Considering the high volume of use this river segment is doing well. Maybe don't build back the sidewalk to Little Hole out of the woods.

[1140] Need showers at campsite (one for the whole site). Too many people at the launch site. Lack of trash receptacles. Not enough parking. Lack of shelter/shade.

### ***Green Daily***

[1401] I would like to see tamarisks controlled on every Utah river. They aren't native and they've taken over 100,00 CFS in 3-5 years. Would take a couple of weeks (of floods) in May like nature used to do.

[1402] To make sure that the cattle stay away from the river. There was a dead cow on a sand bar in the middle of the river.



- 1 [1408] Remove the tamarisk and poison ivy (if not native).
- 2 [1409] We had a problem with a commercial firm. They thought they had a right to bully the  
3 other boaters because they had more equipment. Very rude.
- 4 [1420] Not along the Green River. I can think of some other river in the area that have problems,  
5 though. The permit system on Westwater could be changed to minimize the three deaths.
- 6 [1423] We had a delightful campsite close to the river.
- 7 [1425] The road needs to be improved. Serious damage is being done by cars driving on it when  
8 it is wet.
- 9 [1426] Just that the road could use grating.
- 10 [1447] The noise of the other campers.
- 11 [1450] More historical and geological information.
- 12 [1453] Pave the road.
- 13 [1457] Cattle droppings along the beach fronts.
- 14 [1465] No, I enjoyed the river trip and would do it again.
- 15 [1468] I would like to paddle myself as a team to provide the feeling that I did it.
- 16 [1469] As much as possible, they should leave people alone while they're on the river.
- 17 [1493] Had a wonderful time with no experienced guides. No problem.
- 18 [1505] Clear markings of launch site.
- 19 [1524] No drinking fountains?
- 20 [1528] Muddy water.
- 21 [1544] Too much easy public access brings in riffraff. I know Split Mountain and the Green  
22 Daily in DNM has a permit system. Maybe the Green Daily and Colorado Daily should  
23 have a permit or at least a small fee system.
- 24 [1545] There was trash along the river at campsites but it was not from the river runners. It was  
25 from locals partying and car campers.

- 1 [1546] The drive-in campers/picnickers seem to be the only ones leaving trash.
- 2 [1553] Non-native plant species are abundant. Provide more information about historical sites for  
3 first time visitors.

#### 4 *Green Desolation*

- 5 [1802] This trip was a pleasant exception to past Deso trips when we have seen way too many  
6 boaters, campsites have been difficult to get, and commercial trips are loud and  
7 sometimes rude. I hope this means that positive changes have been made and will  
8 continue.
- 9 [1805] The tamarisk are choking off natural grasses and trees. It is a major problem and causes  
10 campsites to be lost. Tamarisk and mosquitos are a major problem.
- 11 [1806] Don't waste time and money on marginally valid surveys like this one.
- 12 [1817] Lack of environmental education to visitors.
- 13 [1820] At Jack Creek, there were people on ATV's who were noisy, noseys and destroyed a lot of  
14 vegetation. No dogs should be allowed on any rivers.
- 15 [1829] Native vs. non-native plants.
- 16 [1839] Can anything be done about those mosquitos? I have never seen worse. They are out day  
17 and night! Ferocious!
- 18 [1840] Trash floating from sources up-river of launch site.
- 19 [1842] I cannot see a great impact on the environment by placing bat houses at Sand Wash to  
20 help control the mosquito problem. That was out of control even for a wilderness area.
- 21 [1846] Inexperienced boaters not being able to self-evaluate. This is the second year in a row we  
22 were called upon to evacuate sick/injured people (three in total).
- 23 [1849] I think its sad that for all the years we've gone out to Sand Wash, that this year some one  
24 chose to break the display case in the screen house. Most of the river runners are very  
25 cautious and friendly. The rangers have all been excellent.
- 26 [1852] Large groups need to be organized better. We could barely get through the road with all  
27 the vehicles parked along side it.

- 1 [1864] Tips on paddling across river to get to campsite.
- 2 [1871] Unqualified to answer.
- 3 [1877] A bear came around camp the morning of our last day looking for food. This seems to  
4 indicate campsites (this one in particular) had been left dirty and/or food scraps left. Need  
5 better public education.
- 6 [1878] Size of commercial groups; number of boats for commercial leading to lots of encounters.
- 7 [1883] Permit system irritating but probably necessary. ATV tracks. Keep cows out! Lower end  
8 and takeout crowded. BLM in a power boat was irritating. Trash and sewage facilities  
9 would have been nice at the takeout.
- 10 [1884] Mosquitos at the launch site.
- 11 [1886] Make sure that you don't give more percentage of use to the commercial companies. This  
12 is my biggest concern.
- 13 [1893] The pee is collecting on the shore. Yuck!! Need to communicate about campsites.
- 14 [1895] We were told not to camp by abandoned ranch but the rules were understood differently  
15 but different groups. There were no major problems. River managers do a very  
16 commendable job.
- 17 [1897] Work out an agreement with the Ute Indians on river left. Only saw desert Bighorn at day  
18 section and the takeout. Are they not in Desolation Canyon?
- 19 [1913] Besides the mosquitos and large commercial groups, the trip was spectacular.
- 20 [1915] Mosquitos a the put-in.
- 21 [1926] Groover facilities (for emptying containers) at the takeouts.
- 22 [1931] Tamarisks, not much else.
- 23 [1933] We saw a lot of groups camped on the Indian Reservation side of the river.
- 24 [1935] No. just protect this invaluable resource.
- 25 [1939] Please don't allow problem bears to be taken to the Utah canyons and rivers and please  
26 limit the bear population. We will stop going on river trips if bears are a problem. This is  
27 the first year out of at least 20 that we ever heard of bears.

- 1 [1940] Prohibit motors. It should be that after the first day, seeing others should not be an issue,  
2 but commercial groups with a motor move fast and so they pass you, even if they  
3 launched 1-2 days after you. That and the overall racket of a motor. You can hear them  
4 from a mile away.
- 5 [1945] I think the new research on timed released at the Grand Canyon would be a good  
6 guideline for beach restructuring and mosquito control as well as non-native plant  
7 control.
- 8 [1950] The problems that face the planet are not within the scope of river managers capabilities.
- 9 [1962] Horrid conditions at Sand Wash – bugs, mud, heat, no boat ramp, no drinking water,  
10 security with leaving equipment overnight.
- 11 [1963] Commercial groups are always too big almost anywhere you find them, whether it's in the  
12 Wind River, in Southern Utah desert, or on Desolation.
- 13 [1966] Allow camping on Indian reservation side of river.
- 14 [1989] Keep up the good work. Too many motorized watercraft was not a problem on this trip,  
15 but it is a big problem on many other rivers that we have run. It smells awful and spoils a  
16 few hours of our trip.
- 17 [2000] When adding an additional person to the trip at the last minute, there was no way to  
18 simply pay the fee to the volunteer ranger. A completely unrealistic suggestion was made  
19 to drive all the way to Green River by the Ranger in charge (who was rude and  
20 inconsiderate). Thanks to the volunteer ranger, the trip was a success.
- 21 [2016] Trash and debris along the lower section of Greys Canyon between Nefertiti Rapid and  
22 Swasey's Rapid, and disturbance from motorized vehicles and RV's on the road next to  
23 the lower stretch.
- 24 [2022] We didn't know the camp at Nefertitti Rock was accessible by car. Our last night  
25 camping there, some campers arrived. In the morning they proceeded to shoot guns for  
26 about 30 minutes. That was scary. Maybe there could be restrictions on shooting there.
- 27 [2027] During our five day trip in Desolation Canyon, my son and I say only one other group of  
28 three people. All campsites were clean with little evidence of human waste.
- 29 [2031] Large group impacts, especially at favorite camps (Wire Fence, Rock Creek) petroglyph  
30 damage prevention.
- 31 [2038] Only significant problem for me was mosquitos and insects.

1 [2039] Keep it as beautiful and unspoiled as it is. I only saw one cigarette butt and half a  
2 pistachio shell in five days. Don't let it get crowded!

3 [2045] Do more checks to make sure boaters are actually using the portable toilets and not  
4 camping in off-limit areas.

5 [2050] At launch, people drunk and cruising in trucks and carousing into the wee hours.

6 [2057] It's too bad there is so much non-native vegetation. Advertise the camping restrictions  
7 more (e.g., about a half mile from Rock Creek. I'm sure the Group that was camping  
8 there didn't know they were breaking the rules).

9 [2203] Had a hard time finding good campsites.

10 [2210] Help to protect wildlife in area.

11 [2211] More information on how to be conscientious about doing or having as little impact on  
12 the land as possible. The motorboats were very hard to be with, but I'm not sure if it  
13 makes sense to not let them be there at all.

14 [2216] Tamarisk.

15 [2221] Just emphasize that a low impact, low human contact, wilderness experience is what is  
16 important to me.

17 [2223] Inconsistent water levels. Campsite indicators needed.

18 [2245] Get rid of the mosquitos.

19 [2255] Some sort of markings for historic sites.

20 [2271] Flood the river; controlling tamarisk thickets, thus creating campsites!! Maximum of 4  
21 boats/party.

22 [2277] Mosquito season!

23 [2281] Just make sure the people treat the land and water perfectly.

24 [2283] Damage to petroglyphs and pictographs.

25 [2285] Listen, this is IMPORTANT. To preserve the unique character of these natural gifts and  
26 environment, don't make it too easy for people. To require effort, some discomfort, some  
27 inconvenience and sacrifice will minimize overuse and develop a sense of personal

1 accomplishment and appreciations for nature and her powers. That's the point, isn't it?  
2 This approach will also discourage the insincere and disrespectful types.

3 [2289] No, I like the naturalness – no signs, no development!

4 [2306] 1. Non-native vegetation eradication, re-introduction of native vegetation that was out-  
5 competed by non-native vegetation.  
6 2. Creation of designated campsites then careful management of such sites to eliminate  
7 (limit) bank erosion and soil trampling.

8 [2320] We had hard time finding a campsite on river miles 75 through 62.

9 [2329] Tamarisk.

10 [2330] River banks were too overgrown with vegetation making it hard to find campsites.

11 [2334] Keep taking care of historic resources.

12 [2346] Too many bushes have been planted that are not natural and they cause the insect  
13 problem.

14 [2951] If a permit system is adopted, do not make it solely a lottery; either wait-list or increased  
15 priority after lottery failures. Prohibit motorized use especially jet skis. Tamarisk control?  
16 More natural flow regimen.

17 [2348] No marked campsites. Tamarisk too thick to exit river.

### 18 *Westwater*

19 [2714] Existing rules are good, but sometimes need better enforcement. Noise, commotion, and  
20 barking dogs at the launch site most of the night is why we chose a motel this year. Why  
21 can't quiet after 10 PM at launch sites be enforced? (Is also a serious problem at Sand  
22 Wash for Desolation Canyon.) We know many other people who complain about this!  
23 We sometimes float Ruby and Horse Thief Canyons as a continuous trip ending with  
24 Westwater Canyon. On the prior two canyons, motor boats with rude, drunk drivers have  
25 been a problem. I am happy with conditions in Westwater Canyon itself

26 [2715] Too much noise and rude behavior after 10 PM at launch site (not too many people, just  
27 rude people). Probably due to drinking.

28 [2746] No. Westwater is nicely managed.  
29

- 1 [2753] They do a fine job. Don't change a thing.
- 2 [2755] Priority Point System if you are not drawn.
- 3 [2756] A differentiation between day-use and overnight use. Many day trips have little impact on  
4 the river, and I think more day use permits is an idea that could be experimented with.
- 5 [2757] Restrooms at put-in need to be cleaned.
- 6 [2758] Trash at takeout.
- 7 [2778] Non-indigenous plants (willows?) taking over the campsite near the Delores River.
- 8 [2779] No.
- 9 [2780] Non-native vegetation.
- 10 [2803] More permits for private boaters.
- 11 [2804] Westwater is very well managed for how very popular it is.
- 12 [2809] Pressure the department of transportation to direct water that floods road for shuttle (i.e.,  
13 dirt road directly underneath I-70).
- 14 [2829] No, as long as people carry out what they bring in and leave ancient artifacts alone.
- 15 [2833] Keep numbers of parties and people the same. Works real well at Westwater.
- 16 [2841] I think they are doing a very good job and I don't want to see anymore restrictions placed  
17 on use of the river.
- 18 [2846] Perhaps a limited supply of water can be pumped at the Westwater put-in.
- 19 [2847] Cut back commercial use and increase private use.
- 20 [2849] The Westwater permit office is not properly serving the public and doing their best to  
21 allow access. Office needs to be open all day and to realize this is the public river not  
22 theirs. Needs to be more flexible. People do not plan this trip months in advance. The  
23 resource is fine. The problem is the permit office. They need to make access easier, not  
24 harder. They need to make more of an effort to allow cancellations to be filled. Refund  
25 unused spots if a week's notice is given to allow transfer of permits.
- 26 [2851] Gathering of firewood. Especially later in the season (and often even early). There has not  
27 been a large enough deposit of driftwood. Boaters are then strongly tempted to "cut"



1 firewood. We may need to start requiring boaters to bring their own.

2 [2853] Campsites along river are okay. Put-in campsite is degraded and worn from use. Add  
3 some flexibility to give river permits to users who did not get a lottery awarded permit.

4 [2863] Late night parties with “Loud Music” at the put-in on the river. Waste dump and trash  
5 facilities at the takeouts. Lack of historical, cultural, and archeological information.

6 [2864] Clarification to rangers of requirements to be met by boaters to have their permit  
7 approved; my ranger was unsure of life-vest type requirements. Don’t prohibit boaters  
8 because of inexperience. My suggestion would be providing safety information at put-in.  
9 Safety information could include general personal and boating safety as well as specific  
10 maps and suggested routes and techniques for winning Skull Rapid. Perhaps some way  
11 for boaters to recognize that Skull is coming up.

12 [2871] Signage at campsites to people know which is which when they get down in the canyon.  
13 We had a mix up once that turned ugly.

14 [2878] A more convenient permit system. It’s difficult to plan trips and put together a group so  
15 far in advance. Then things come up and people have to drop out.

16 [2879] No. thank you for giving me the opportunity to give feedback.

17 [2880] Revamping whitewater rules/regulations to reflect whitewater circumstances, not coast  
18 guard flat water environment. Specifically, permit use of hand paddles as “extra paddle.”

19 [2881] Westwater is great!

20 [2882] Too many commercial. Do not need private permits.

21 [2887] Not really. The most important issues were covered.

22 [2905] I have tried to get a permit during the season five or six times and never gotten one.

23 [2933] Doing a great job.

24 [2958] Inexperienced boaters who rent equipment. This group (one we rescued) had two rafts  
25 and five kids (9-14) two dogs and two oar people who never ran Westwater.

26 [2963] More people should be allowed to run this stretch each day. One-day trips have minimal  
27 impacts.

28 [2967] I don’t think it’s necessary for day trips to carry porta-potties or fire-pans.

- 1 [2968] Control motor boats. No jetskis. Require people to use fire-pans and river toilets.
- 2 [2972] More patrol to make sure people are not breaking any laws: e.g, indecent exposure and  
3 drinking.
- 4 [2995] Commercial trips pulling out when private trips pass and creating a jam of boats. Also  
5 jamming up put-in ramps.
- 6 [3009] Lease alternative put-in/takeout facilities to extend trip length and overnight  
7 opportunities. Not enough campsites. New camps could be established before canyon  
8 entrance; past Miners Cabin, at Little Hole, Outlaw Grave, Big Hole, Little Jewel,  
9 Cottonwood Creek, Left River Cottonwood Island and more.
- 10 [3013] I have always believed that some parties are “buddies” with rangers and therefore always  
11 get the best campsites.
- 12 [3014] Keep all manmade impacts to the river at a minimum. Tear down the A-frame house  
13 overlooking the canyon entrance.
- 14 [3017] I answered these question from what I saw when I went down, but I feel safety and  
15 environmental quality are the problems that need to be addressed.
- 16 [3019] The toilet paper and other bits of trash in the bushes. Educate, educate, educate! Let  
17 people know that’s not cool!
- 18 [3024] Difficulty in obtaining a permit through the lottery.
- 19 [3031] Equity between commercial and private access.
- 20 [3035] Difficult to obtain permits under lottery regulations and cancellations are difficult to get  
21 also.
- 22 [3036] Make sure inexperienced groups don’t go alone, especially in paddle boats or duckies.
- 23 [3038] Getting enough information on the difficulty of the water on the stretch of river to the  
24 river runners. Have had one killed this year at Skull.
- 25 [3039] It is inexcusable for the river ranger to not inform you the shuttle shortcut is washed-out.  
26 As you may have guessed, I like this segment the way it is. Takeout and put-in could be  
27 separate for commercial and private groups. Information on all things interesting  
28 (historical, ecological, etc.) is always welcome. I always support tamarisk eradication  
29 efforts.

- 1 [3046] How to get more people down the river without too much impact.
- 2 [3052] Eliminate motoring up river. This will eliminate jetskiers from going down river at Loma.
- 3 [3062] Would like human waste disposal facilities at the put-in and takeout.
- 4 [3073] We enjoy quite, solitude, and space.
- 5 [3082] We had a great trip and really did not experience any problem. Everything was well run  
6 and managed.
- 7 [3090] No, just keep it from getting crowded. Seclusion and the illusion of isolation were  
8 important
- 9 [3091] Small. I wanted a group rafting action shot, but there were no photographers from any  
10 company taking photos.
- 11 [3210] Cut back on commercial launches by about 30-50%. Let the people have the river back  
12 from the herds and hordes of commercial entrepreneurs. Too much commercial activity.  
13 Many of the rivers I run are crowded simply by the number of commercial groups.
- 14 [3211] Kayakers want Westwater at 3500 cfs. A permit process requiring a January guest-mate is  
15 poor at best. Give us access to non-used commercial permits.
- 16 [3227] Spider webs of random trails damaging fragile soils. Keep the number of campsites the  
17 same but maybe create a couple more to close sites on a rotation to allow for the recovery  
18 (Little D is great but worn out).
- 19 [3228] Have campsite use on rotational basis so some can begin recovery.
- 20 [3231] Tamarisk control.
- 21 [3234] Upstream pollution.
- 22 [3239] Keep all motorized access closed. Maintain remoteness. I heard that the permit system  
23 required managers to allocate several user days (i.e., many people) on a recent day I was  
24 there, so it was very crowded. How about allowing more day users throughout the  
25 summer to avoid end of year user day dumping. River etiquette and hygiene guidelines  
26 (e.g., where to pee, etc.) should be posted. It's not usually a problem, but I've seen it by  
27 boaters who should know better.
- 28 [3244] I strongly feel pets should be prohibited on Westwater. They can't be educated on proper  
29 behavior; doubtless one dog has more impact than 20 people. I saw a dog kill a family of

1 rabbits. They are a menace and don't belong on wilderness rivers.

2 [3250] Rangers need to be more evenly and regularly dispersed along the rivers so they may be  
3 aware of safety and trash issues.\*\*\*

4 [3251] Make sure river runners know this can be a very unforgiving stretch of water for those  
5 whose skills and equipment aren't up to the challenge (in remote locations rescue access  
6 and medi-vac are very difficult at best).

7 [3262] I thought problems were minimal, though my sister stayed in a campsite that had many  
8 cigarette butts on the ground.

9 [3264] Conflicts between commercial and private parties.

10 [3265] Rowdy campers.

11 [3270] No, I think Westwater is managed well. Keep it simple, back to nature, educate the  
12 people on how to act in nature. River experience does not have to be like Deer Valley  
13 and Beaver Creek.

14 [3272] Late night arrivals disruptive to sleeping campers.

15 [3274] Check in ranger not being available to appropriate times.

16 [3276] I want to comment. We ran the river on a Monday late in the season so there were very  
17 few other parties on the river. I think Westwater is very suitable as a one day river with no  
18 camping and that the number of permits for private parties to do one day trips should be  
19 increased. I think 2-day permits with camping should be limited according to the number  
20 of designated campsites available and the amount of impact camping in these areas has.

21 [3286] I ran the river on the day of the last fatality. The cell phone did not work and there was  
22 no phone available at the take-out to inform the authorities.

23 [3293] Water temperature and possible hypothermia information could be as simple as a "wet  
24 suit recommended" card at the put-in information board. No major problems.

25 [3296] Permits are too difficult to obtain. Make permits obsolete.

26 [3297] Add more authorized campsites to reduce the impact of overuse.  
27 There is too much control of launches. The river should be opened up to unlimited  
28 private day trips.  
29 Control no-native vegetation on shore.  
30 There should be a ranger at the take-out to see that the ramp is not blocked and people

1           derig quickly and get out of the way.

2   [3298] A person died in Skull on the day I was on the river because he violated many safe  
3       boating regulations. Increased the number of launches, require annual boating safety  
4       course in order to get on the river. More extensive for boatmen than for passengers.

5   [3300] Tamarisk taking over beaches. At Little Dolores garbage was in the river (probably from  
6       the town up stream).

7   [3303] This is a very well managed river segment.

8   [3306] Late night arrivals at put-in partying.

9   [3317] Promote wild and scenic river status and get that ridiculous gold mining equipment out of  
10      the canyon.

11   [3325] Dogs! Should be banned at put-in and on the river. Rangers should stress more river  
12      etiquette and worry less about "fresh glue". Campsite reservations could be better. Large  
13      groups of 15 or more people shouldn't get a preference on campsites. Also, large groups  
14      have disproportionate effect on the environment. People should be encouraged to have  
15      large groups except on a daily, no camping on the river basis.

16   [3326] this is the west, it's dangerous and at times you take your life in your hands and your  
17      guides experience.

18   [3332] The put-in ramp is too small and not adequate . A better put-in facility is needed.

19   [3335] Cattle, Mining, and Personal Watercraft are this segments major problems.

20   [3336] No fee demo!

21   [3337] Not to my knowledge.

22   [3339] Rotation of camp sites from season to season to all revegetation.

23   [3342] Just more pre-trip "environmental awareness" tips for boaters. Included with the permit.  
24      Help reduce soil compaction/erosions, straining kitchen buckets, etc.

25   [3348] Mosquitos are a big problem during the hatch, but most of the time they are ok. Just like  
26      there are too many people during the peak season, but not at other times. During the  
27      summer months there are too many boats on the river and conflicts between groups  
28      becomes a problem, but that decreases as the fall sets in. The major problem with trash is  
29      downstream from the take-out. Vegetation and trampling are especially prevalent by the  
30      recycling bin.

1 [3351] pressure at the put-in can be problematic. The take-out is not as bad, primarily because of  
2 the size and down-rigging time.

3 [3354] I think they should mark the campsites.

4 [3355] Get rid of non-native trees that cause the campsites to be overgrown.

5 [3356] Signage. Label camps or landmarks so those unfamiliar with the river know where they  
6 are and if they are at the proper camp assigned.

7 [3357] There needs to be more of a spare at the waters edge for derigging of boats. They also  
8 need a little flexibility on the permits. Our permit holder was injured and there bt we  
9 could not go on the river for hew as not going.

10 [3366] Every time I've stopped at Little Dolores I have seen people peeing in the river.  
11 Although we have to carry a day toilet, I've never seen anyone set on up at Little Dolores.  
12 Who wants to untie their boat just before the rapids? Rapids make people nervous, when  
13 you are nervous you usually have to go to the bathroom. Maybe you need to put in a solar  
14 toilet at Little Dolores above the high water line. It's clear you can't stop people from  
15 stopping at Little Dolores and it's also clear you can't stop people from pooping or  
16 peeing. So manage the problem, give the rafter what they need where they need it.

17 [3372] Emergency communications when needed.

## 18 **Dolores**

19 [3102] Stateline Rapid at mile 10 can, in very high flow years, be a hazzard to less experienced  
20 boaters. Information at the put-in might help prevent accidents.

21 [3116] Keep a steady predictable flow on the Dolores by letter managing the dam releases from  
22 McPhee Reservoir It seems like there's either too much or too little and they often don't  
23 do what they say they are going to do.

24 [3119] The ramps at the landings need to be adequate for backing vehicles and trailers to the  
25 water for loading/unloading. Grading, controlled erosion is minimal paving and concrete  
26 are desirable.

27 [3126] Don't over manage this section of the river. It doesn't need a lot of managing at this  
28 time.

29 [3129] Better detailed map needs to be published, we did not know of the Rock Side.

30 [3132] Don't advertise or publicize this stretch and hopefully they won't come. Dolores is so

1 little used that there are not significant managerial problems that I can see.

2 [3134] Do not permit this stretch like Westwater. It is fine the way it is.

3 [3139] No cows on Public Riparian Areas.

4 [3142] More information concerning human impact provided to commercial and private boaters  
5 at the put-in.

6 *Colorado Daily*

7 [4019] Keep motorized craft, especially jetskies out.

8 [4021] On the Daily on the Colorado River, over crowding can be a concern due to the large  
9 number of commercial outfitters from the Moab area. However, I have found that most  
10 boaters on the Daily are considerate, clean up after themselves, and help make room at  
11 the put-ins and take-outs. Please do not limit the number of boaters. This is one of the  
12 best stretches in Utah for beginners and intermediate boaters.

13 [4048] Only experienced boaters when the water is high. We had to rescue someone.

14 [4081] Building private resorts along the river should be stopped!

15 [4088] Low flying jets.

16 [4094] No, just take-outs and put-ins – they need attention.

17 [4102] Why the big delay getting the rat out of the water? The snake has twice as many people  
18 with half the wait.

19 [4106] No – great little stretch of river.

20 [4118] Can't comment because of minimum time spent on the river, and because we were with a  
21 commercial rafting company. I didn't see any jet sis, but I don't think they should be  
22 allowed. They would ruin any rafting experience.

23 [4172] I really don't know enough to properly identify the most important problems.

24 [4201] Getting hassled by rangers about not having a break down paddle on the Colorado Daily.

25 [4202] Provide a shuttle from take-outs to the put-ins.



1 [4233] Educate people on how to use the river: take a portable toilet, respect vegetation, take out  
2 all you brought in, use fire pan, etc.

3 [4238] Just more shade at the take-out.

4 [4244] No, they were all listed in the survey.

5 [4278] Surveys like this.

6 [4279] Any and all development and agricultural use of land at or near the river.

7 [4288] Start with what you have here and keep it simple. For the most part, the problems are on  
8 shore— due to the depredations of a few ignorant people.

9 [4290] Like the “endangered fish” signs, some about cryptobiotic soil, safety, and land protection  
10 (educate the masses).

11 [4312] I only noticed one piece of trash in the water. Otherwise everywhere was neat, clean, not  
12 that trampled, peaceful, nice people, not motorized crafts.

13 [4314] Inexperienced and inconsiderate people at put-ins and take-outs. Some people “hog” the  
14 boat ramps making others wait. I am not sure what impacts the proposed development of  
15 the ranches in this area will have on the river running. I would limit the number of  
16 commercial outfitters since this is one of the few segments that private boaters can run  
17 without a permit. That is why we came here because other places are permitted with are  
18 hard to get.

19 [4317] No. My answers are based on just one particular stretch of the Colorado near Moab over  
20 a 10 year period. I think the rafting companies are conscientious enough to do a good job.  
21 Rest rooms are good to have.

22 [4329] Develop a trail beside White’s Rapid so we can carry our boats upstream to run it several  
23 times.  
24 Mark larger ramps at the BLM take -out in a bigger eddy.  
25 Address traffic problem of mixing speeders, recreationists, and tourists on one narrow  
26 winding road with many unsigned driveways and pull-offs.

27 [4335] Companies that rent boats to inexperienced boaters. I know they try to give good  
28 information, but they’re nuts!

29 [4417] Litter

30 [4431] We need more water at the campsites.

- 1 [4454] The destruction of Onion Creek. I don't like so many people, however, I really don't  
2 want the daily regulated except for the really large groups.
- 3 [4455] People who want a wilderness experience, isolated from civilization shouldn't think they  
4 are going to find this on the part of the Colorado River that runs along side a road. It is,  
5 however, still a dangerous "untamed" piece of nature that can never be "managed." I  
6 don't think river managers can be responsible for making the trip "perfect," they can only  
7 help us all know our responsibilities toward nature and each other on the river.
- 8 [4457] Life jackets.
- 9 [4458] Keep put-in and take-out ramps free of mud. Real ramps at Ida Gulch.
- 10 [4460] More information signs about statistics and dangers.
- 11 [4462] Cold water! (Ha, ha!) River managers should only do the bare minimum. We don't need  
12 a bunch of tax money spent on more management. People (individuals and outfitters)  
13 should be responsible for their own safety and welfare while recreating on the rivers.  
14 More rules just tempt people to break them.
- 15 [4463] It seems to be managed fairly well. Jet skis should be restricted.
- 16 [4498] More education on low impact techniques and allow more freedom to travel.
- 17 [4525] Daily postings of information on water levels and rapids wouldn't hurt.
- 18 [4567] Provide well spaced launch sites for different groups and trash break larger groups up into  
19 smaller parties. Also, more information on river etiquette.
- 20 [4574] Toilets.
- 21 [4576] Toilets.
- 22 [4585] Long term planning- need to remain a similar experience given the increase of people.
- 23 [4591] Our guide seemed very nice, but very firm on protection of the river and the beaches. I  
24 saw no trash, crumbs, or trampling of plants along the bank. My experience with  
25 camping is most people do a good job of protecting an area, but there are a few who will  
26 not. I guess you have to pick-up their mess too. At least that's what we try to do.
- 27 [4599] Tamarisk management.